

George Gilder • Susan Griffin • Stewart Brand • Howard Rheingold • Brian Eno

# W H O L E R E V I E W E A R T H



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**T**imes have changed  
and the world comes to us in different ways.  
Narrative has leaped from the page to the screen,  
music demands to be seen as well as heard,  
computers have jumbled our relationship to  
information, surveillance and money,  
and television has merely changed everything.  
Now, things feel like they're moving really fast,  
leaving us with the attention spans of kitties  
riveted by mouse-like movements.

Within the blink of a blind eye,  
we are soaked in sales pitches and infotainments  
that make history when they do business.

Running in place at the speed of light,  
we defensively cling to our unexamined notions of categories,  
our dilapidated signposts in a bleak landscape.

They make things simple again.

Reflections of control,  
they reassure us that there's a time and a place for everything.

Declaring what's right and what's wrong,

they strengthen stereotypes and  
murmur the false humilities of "common sense."  
Glowing with a veneer of studied connoisseurship,  
they can grow nostalgic for times that never were.

They are easy systems.

Use them, but doubt them.

They are the rules of the game,  
but perhaps no longer the one being played.

—Barbara Kruger

*Remote Control*



Challenging  
ASSUMPTIONS

P O I N T  
f o u n d a t i o n



# W H O L E R E V I E W E A R T H

NUMBER 83

SUMMER 1994



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Photo by Nick White

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### Cover

"Old Man and Ape" by James Balog.

This issue's cover art is a reprint from the beautiful and disturbing *Anima* (reviewed on p. 20). James Balog's photography appears here through his generosity and that of his publishing company, Alternative Arts Press of Boulder, Colorado.

### Random Art

At the beginning of each domain, an experimental attempt to provide the visual relief of advertising without the commercial intent. Tell us what you think.

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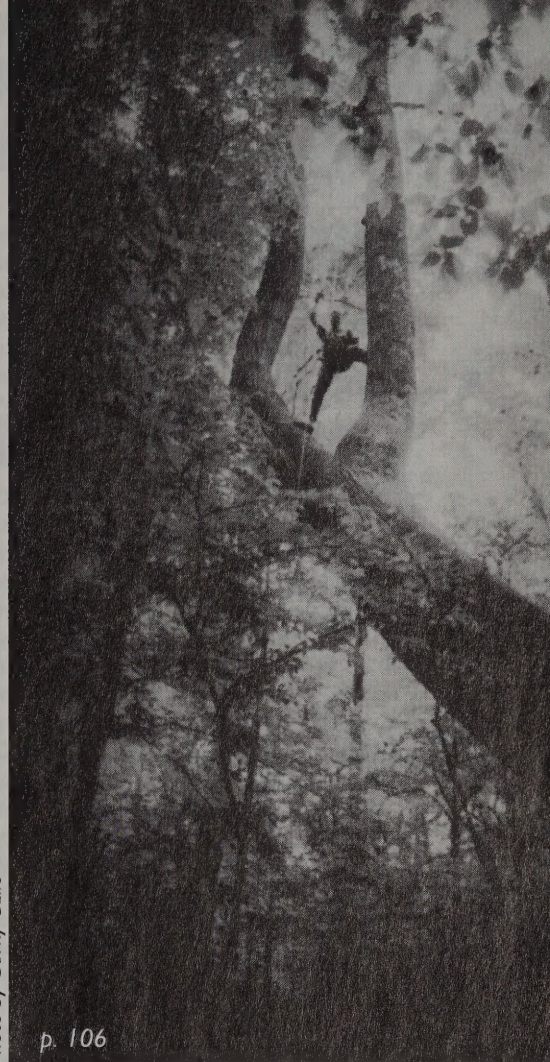
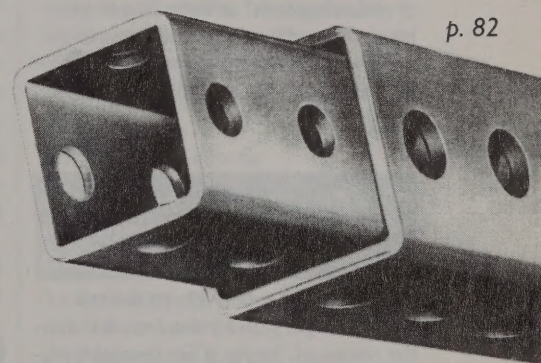


Photo by Corky Gallo

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# FRONT

## Eat the children

I read the words of John Sumser (#81) and must remind him that as fascinating as his children may be and as joyous their laughter, our planet is awash with children. Look at the deteriorating condition of the bay area, the central valley, the LA basin, the entire east coast to observe that fact. Every nook and cranny of the earth is becoming overloaded with humankind.

Persons producing broods larger than two children are ecologically irresponsible. They are creating a world where their children when grown could be denied the pleasure and wonderment of having children of their own.

Overbreeding, the flood of immigrants and a wildly unsustainable consumerism have produced this lose-lose situation and the children become the victims of thoughtlessness.

Look at the Chinese government's policies to rein in their glut of humans. See what solutions can be imposed on those darling Sumser children's generation. It cannot happen here! Get your tubes tied Sumser!

And while John Sumser sees himself as the miracle to "undo the damage of years of misperceptions" at Point I'll add that his giddy newfound self-awareness is more than a bit condescending and overwrought; And very eastern.

Bill Evans

## Talk the talk, walk the plank

I am a second generation "Whole Earthie." My first memories of the *WEC* are of sneaking away with my father's copy to oogle, in pre-pubescent wonder, the review of *The Joy of Sex* (probably in much the same way that others before me had thumbed the pages of *National Geographic* or *Sears Roebuck* in search of "nasty" thrills). As time passed, I became more appreciative of the other topics & information contained within. When I left my father's house for the last time, I carried his old "dog eared" copy with me. Though often consulted & browsed, it was only years later while living & working in Canada's Northlands that I came to fully appreciate the emphasis on the word "access" and it was 4 years ago that I "formally" re-entered the Whole

Earth Community by subscribing to *WER*. I don't think I can over estimate the Impact that "Whole Earth" has had on my development as a person, and this, in turn, has touched many others. If or when I eventually have child(ren), the *WEC* will always sit open, and be the *Encyclopedia Britannica* around which their home schooling will be built!

One of the things, maybe *the* thing that has impressed me most about *WEC* is that it always "talked the talk." Cultural, spiritual, intellectual diversity, ecological responsibility, respect! It all made sense and seemed to inspire and even stimulate me towards cooperation and empowerment through increased awareness. The recent call for Millennium Whole Earth Catalysts, then, was something I could not ignore. If there is one topic/issue that can affect the coming millennium most profoundly, it is that of the hemp plant (#80). Its long proven history of usefulness, and Its potential for positive impact on medical, ecological, economic, and socio-political aspects of our society, and planet at large, are too important to ignore. The technology and materials now exist to produce the first "tree-free" *Whole Earth Catalog* using hemp paper. If POINT retains editorial control over the content of the *MWEC*, and if, as Marshall McLuhan pointed out, "the medium is the message," then there is no excuse for not making the editorial "statement" of a *MWEC* tree-free Catalog.

Yes, POINT has always talked the talk, now we shall see if POINT walks the walk as well . . . Well? . . . the Whole Earth Community is watching.

Mark Reynolds  
Schefferville, Quebec, Canada

## Useless to the pragmatist

I have been a subscriber for many years.

In the past I have found your magazine valuable as a house of useful books and tools; I would regularly find half a dozen useful items in each issue requiring a follow up.

For the past year your magazine has been virtually useless, going off on spiritual and psychological tangents having no immediate application in the real world.

Unless you come back to earth — as epitomised by the Whole Earth catalogue

— I shall not repeat my subscription. This would be a pity as you formerly fulfilled a useful purpose; you seem to have lost your way.

Dan E. Mayers  
Wadhurst, Sussex, England

## The evergreen view

Firstly I would like to congratulate John Sumser for turning his back on the "defense" industry, and for using his varied talents to revitalize "Whole Earth Review."

As a member of the New Zealand Green Party, and someone who believes passionately in a sustainable economic system, I must applaud Joseph Rowe's article entitled "Pas de Pays Sans Paysans" (#81), and the comments therein on GATT, and the need for sustainability in all farming practices.

For me personally Gaia, Deep Ecology, Permaculture, Bioregions, Creation Spirituality, and "Green" Politics are all part of the same philosophy! The above are old ideas re-born upon which we must build a more holistic world view, that is if humankind is to survive on the whole of Planet Earth.

It is the job of "Green" thinkers, activists and journals such as "Whole Earth" to debate and collectively develop an ecological world view.

My Celtic ancestors from the west country of Britain and Ireland believed that this current Age of Iron and Silver started at the Second Battle of Mag Tuireadh in Ireland (BC 1871) ends after 3888 years in AD2017. So I live in hope that the next Age is one of "Sustainability" and Gaia Fellowship.

Philip Chubb  
Tairua, New Zealand

## Drain it All!

Any school boy knows that there is a ball of volcanic fire at the center of the earth's core. Yet, for over a hundred years the large oil companies have been draining an insulating layer of oil out from under the earth's surface, and making no effort to replace it.

The results are that not only are we having "global warming" everywhere, but seismic disturbances all over the



# BUFFER

world, such as St. Helens in Washington, Mt. Unzen in Japan, Mt. Pinatubo in the Philippines — as well as earthquakes in San Francisco and Los Angeles — as this volcanic fire rises to the surface due to the loss of that protective layer of oil.

Of course, alternative fuels have been perfected over the years, but any attempt to establish them as an industry has been successfully beaten back by the big oil companies.

So not only will these people create false energy shortages, or international conflicts like the Gulf War, but they will destroy the very planet we live on — and for no other reason than to add to their obscene profits.

Chris Aasgard  
Aspen, Colorado

## Um . . . oink, oink

How could you do this to us? you've Oprah-ized WER! Issue No. 81 was only the 757th cover story on child sexual abuse to hit the stands this month. My point isn't that sexual abuse doesn't happen, nor that it isn't tragic, but rather that your devoting a cover and 23 pages to this fad topic betrays your mission and your market.

The delightful distinctive of WER used to be that you refused to slurp from the trough that feeds most other print and electronic media. Every possible angle and detail of child sexual abuse has been pounded into the national consciousness by People, Newsweek, Time, MS, Redbook, Geraldo, Hard Copy, Phil Donahue, etc., etc. Even your tone of righteous voyeurism mirrored the national media's *ad nauseum* coverage of this issue.

WER's independence from, and occasional disdain for, the media herd is what we readers pay you for. Freed from the need to satisfy the twin demons of advertisers and the mass audience (with its insatiable appetite for sex, violence, and celebrity gossip) you've done an insightful job of exploring the *under-covered*, the obscure but intellectually, politically, scientifically, sociologically or environmentally important, the new topics or new angles that will become big news, written by the thoughtful unknowns who may never become big names. Please think twice before aban-

doning these crucial aspects of your identity, for in doing so you may lose many of us who've been with you all these years.

Rick Cowan  
Washington, DC

## Meccano consciousness

I compute therefore I am. With their claims for the supposedly imminent arrival of machine intelligence, William Calvin and Vernon Vinge (#81) appear to be trapped in an 18th century philosophical time warp. The epistemological implications of modern science suggest that there is no justification for simply assuming that consciousness could arise from the internal workings of a brain or a computer.

Those of us brought up with modern technology are inclined to smile gently at the stereotype of naive tribesmen, who upon first encountering a radio, believe that there must be little people inside. Given the work of scientists such as David Bohm, Karl Pribram and Gregory Bateson, it is quite possible that the advocates of machine intelligence are equally naive when it comes to understanding consciousness. Moreover, if Calvin and Vinge were to share their thoughts with a tribal shaman, it is unlikely that he or she would let them so blandly gloss over their attempts to equate the mind with algorithmic intelligence.

For Descartes at least, the explanatory reach of mechanism extended only to physical existence; God was necessary to explain consciousness. Calvin and Vinge have put their faith in emergent properties. Experience tells us that their faith may be misplaced. Unplanned interactions between parts of complex computer systems have invariably resulted in a big mess rather than a breakthrough in machine intelligence.

I wouldn't be particularly concerned about this matter if the search for machine intelligence was likely to lead to nothing more than a waste of time and money. Unfortunately, despite its claim to objectivity, rationalist thinking has invariably been tied to social agendas. Many of the basic elements of our society including the bureaucracy, the factory and the modern army all have direct antecedents in 18th Century mechanistic

Echoes  
from readers  
back to  
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thinking and the social classes with which it was associated. The resulting social and ecological damage is well known, to say the least. I fear that a search for machine intelligence, especially one driven by economic competition, is likely to lead to results even more bizarre than those we have seen already. I do agree with Calvin and Vinge on two points: we may very well be approaching a singularity and the results are likely to be unpleasant.

Jeffrey Kaplan  
San Francisco, California

## In Memory of Geoffrey N. Calvert

The enclosed contribution to the Millennium Whole Earth Catalog is in memory of my father, who died last week. Although our politics did not often coincide, his lifelong work in the fields of alternative energy, sustainable development and the environment gave me the global perspective and sense of social responsibility that Point exemplifies.

Please enter Geoffrey N. Calvert as an MWEC Catalyst. I'll work on the back page line, probably one of the quotes my dad loved.

Thanks, and keep up the good work!

Pamela Calvert  
Brooklyn, New York



## Dateline: Sausalito

Yesterday I was telling a friend about my dreams for Whole Earth in 2000 A.D. John Sumser added: "I know that I'm succeeding when Howard Rheingold uses the words 'My dream is . . .'"

These are words that Sumser uses often: "dream," "passionate," "create," "rethink," "bullshit!" and especially, "challenge." Ever since he materialized from cyberspace, jumped in a car with his family and pets, drove cross-country to California, camped out in the kitchen, started hiring and firing and fiddling with everything and selling us on his Dream for Point Foundation, he's been using those words around Gate Five Road. That's one of the reasons I've turned over editorial responsibility for *Whole Earth Review* to John Sumser. This is his first issue.

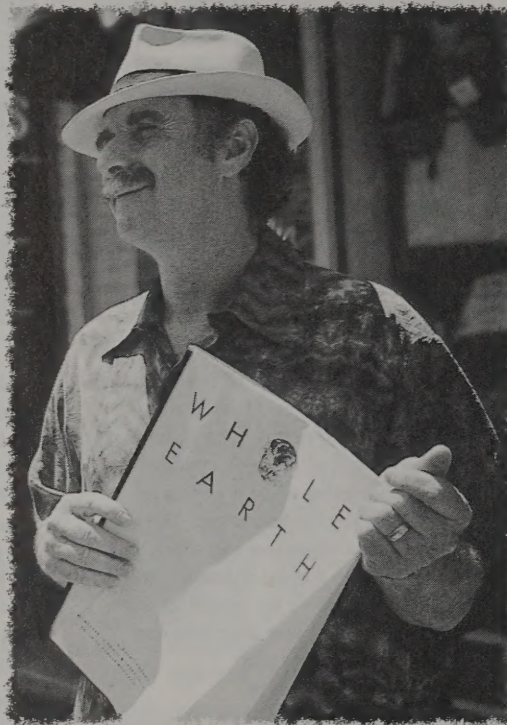
John Sumser is our new editor-in-chief, as well as director of the Point Foundation. All power has been consolidated in the hands of a guy who dreams so big he must be partially crazy. I am very happy with this decision. I look forward to reading the issues of the Sumser era. This is the kind of guy I want out there, sweeping the intellectual horizon for those tools and ideas I want to read about, see about.

When John Sumser volunteered to guest-edit the summer issue while I turned my attention to the *Millennium Whole Earth Catalog*, it was intended as a strictly temporary deal. But then it occurred to me and to John that I was at a point where I was ready to leave the editorship in his hands, and he was crazy enough to believe he can do the job.

Transmitting the odd but potent dharma of Whole Earth editorhood to someone who could nourish, challenge, foresee, inspire, orchestrate, and envision practical utopia building for all of us Whole Earth readers and writers and editors, who could allow the network to speak to itself through him, has been a challenge for me. I've looked around for

candidates for years. It's a strange feeling to have a job where nobody can fire you and you can't even quit until you can find someone you can leave in your place.

For a long time, I was inspired. Now I want WER to inspire me. It's time for big, positive, experimental, unexpected, exciting changes at *Whole Earth Review* and I can promise unequivocally that John Sumser is going to deliver that. He



has wanted to direct the whole darn show and has over the past ten months sold me on the idea. He's the kind of *Whole Earth Review* editor I want to leave in my place. That means the outcome must be uncertain: John Sumser is a gamble on my part. I bet he surprises us.

John Sumser reads more than I do, and he's smarter than I am about a lot of things. He's a big guy. He has a big laugh. He has big visions, big blind spots. He's from the alien culture of the military-industrial-technological complex, which I think is good: we've been drinking our own counterculture kool-aid too extensively for too long. As Whole Earth readers, we want our tolerance for ambiguity stretched beyond the breaking point.

This dialogue between the Whole Earth community and the new guy in the editor's chair will be a radical change for him and for us. John Sumser is also one of those people who has been personally nourished and guided by us since the early *Whole Earth Catalogs* and *CoEvolution Quarterly*s. He's not as nice as I am. He cares less about what other people think. But he'll respond to you. Give him a break. Give him your advice. Hold his feet to the fire, but give him some slack to try new things. Remember, a lot of this is new to him, and he's doing two jobs.

I'm not going away. John and I think I will begin to grow my next, even more grandiose Whole Earth fantasy long after MVEC is launched. John has helped me to see that Gate Five Road has been an unrecognized think tank behind its bohemian façade for the past decades, and that we can make it more consciously a think tank and think-community in future years. I'll be contributing regularly with my own technology criticism, media marmalade, and extraterrestrial anthropology, and I will be steering to John all the new talents I continue to find out there around the world. So Rheingold will still be

around, in freer, less predictable, always grander ways. And I will be able to pursue some other projects that you will be hearing about soon.

You can see that John has encouraged me to indulge my fantasies. Nobody who encounters him can deny that he is a man who is living his own fantasy all the way to the outer limits of possibility. John has a bigger fantasy than mine, and the rest of you deserve the chance to get in on a bigger idea of what we're all about. I don't have to say farewell to my teammates at Gate Five Road, because I'm not going away. I don't have to say farewell to my readers, because you'll be hearing from me. —HLR



# Tidbits

• "What is the Internet? It's like a cat . . . but more useful."

—overheard by Tiffany Brown

• Every person takes the limits of their own field of vision for the limits of the world. —Arthur Schopenhauer

• We live in a society where the guarantee of not starving to death is purchased at the price of dying of boredom. —Raoul Vaneigem

• "I am perplexed."

—Aleister Crowley's last words

• Names are the consequence of things. —Dante Alighieri

• David Chadwick's *Thank You and OK: An American Zen Failure in Japan*, due from Penguin in August, reads like Jack Kerouac becomes Thomas Merton while broke in a Japanese Zen monastery. Chadwick's unpretentious prose underlines the importance of gentleness. He makes Japan a good deal less foreign, providing a great appendix with one-line definitions of Buddhist terms. —JS

• "If the Earth is really one organism, how does it reproduce?"

—Rusty Schweickart

• Not all computer bulletin boards are mere nooks of contention. Check out *Drinking Water Information Exchange* (800/624-8301) and *Water Treatment Information Exchange* (800/544-1936; telnet *fedworld.gov*, use the gateway and choose #37).

• "The human being is the brain of the material, scientific, and technical body of the world." —T. Cleary

• I do not know what I may appear to the world, but to myself I seem to have been only like a little boy playing on the seashore, and diverting myself, now and then finding a prettier shell, or a smoother pebble than ordinary, whilst the great ocean of truth lay all undiscovered before me. —Sir Isaac Newton

• Twelve things to remember: 1. The value of time. 2. The success of perseverance. 3. The pleasure of working. 4. The dignity of simplicity. 5. The worth of character. 6. The power of kindness. 7. The influence of example. 8. The obligation of duty. 9. The wisdom of economy. 10. The value of patience. 11. The improvement of talent. 12. The joy of originating. —Marshall Field

• "How do I work? I grope."

—Albert Einstein

• On his deathbed he had asked, still insatiable, to be lifted up in order that he could catch through the window a glimpse of one more spring. —Loren Eiseley (on Thoreau)

• Here I am, up Shit Creek just like they told me I'd be. And without a paddle, just like they said. I'd expected that, though, since I'd heard it so many times, so I brought along an extra paddle, but I lost it at Shit Falls. What's worse, I lost the canoe there too. Never thought Shit Creek'd be *this* deep. Hell, I'd be happy with a snorkel. All I can do is wade upstream, up to my neck all the way. Stumbled a few times, went in over my head. Now I'm here, though, I figure I might as well discover the source of Shit Creek, maybe make somethin' out of this. Get famous, like that guy who found the source of the Nile. Only this'd be a lot more important, seein' as how it affects a helluva lot more people; 'cause the farther up Shit Creek I go, the higher the population. —Robert Brady, *Kyoto Journal*

• **State of the World 1994** is out, and it's good (as we have come to expect from Worldwatch publications). ISBN 0-393-31117-1. \$11.95 postpaid from W.W. Norton & Co./Order Dept., 800 Keystone Industrial Park, Scranton, PA 18512; 800/233-4830.

• The University of Michigan's Paul Southworth runs an electronic archive of texts on nearly every subject you can name. Paul accepts submissions from anybody who wants their material — newsletters,

zines, books, essays, fiction, poetry — made available to the whole world via the Internet. —Matisse Enzer

For information on submitting files, contact Paul Southworth, Archivist: 535 W. William Street, Ann Arbor, MI 48103; [pauls@umich.edu](mailto:pauls@umich.edu)

• Information technology has gone through a hyping/bashing cycle. First, the runaway *hype phase* built up into an absurd excess, and a chasm appeared between appearance and reality — between the hot, visionary technologies that everyone was *talk-ing* about, and the actual current level of power, usefulness, and price. Steve Jobs' field-of-dreams reality-distortion-field approach to marketing turned out to be a group hallucination: the NeXT revolutionary computer platform *was* "real" — while the hallucination lasted. In the history of outdated futures, 1989 was the year that hypertext, NeXT, *Mondo 2000*, and pen computing caught on and proliferated like wildfire, causing an overnight techno-renaissance.

But here, in 1994, the advertised, full cyberspace is *not* really built yet, no matter how many articles and postings we write and read about it; there has been no revolution, and the cardboard false front of the 1989 hype machine now lies bashed and crumpled, after the *bashing phase* (*Whole Earth Review's* "Questioning Technology" issue and *The NeXT Big Thing*).

Now, in the *reconciliation phase*, we have a grounded vision and do not expect instant and automatic revolution. We have outgrown the attitudes of both fanaticism and cynicism, and the work of actually designing and implementing the revolution is upon us. It is chaotic and challenging to get from here to the networked multimedia future in a viable, profitable way. —Cybermonk

"I can't believe I kissed the butt of that bimbo for six weeks and she still sold out to 'Inside Edition.'"

—Connie Chung on Tonya Harding, "Late Show With David Letterman." 🍌









# The Scum Also Rises

*My classmates and I knew that members of our class had stared the honor board in the eye and lied. There was nothing we could directly do. It fell upon the administration to remove them from our ranks. The Navy officers chose to do nothing. It made me numb with anger. My peers and I had discussions about resigning rather than being a part of a class of cheaters.*

**“M**IDSHIPMEN ARE PERSONS OF INTEGRITY. They do not lie, cheat, or steal.” This simple statement is the Honor Concept of the Brigade of Midshipmen at the United States Naval Academy in Annapolis, MD. It’s very simple and it was one of the first things introduced to me after I raised my right hand in July 1990 to become a member of the Naval Academy’s class of 1994. My school is not like most undergraduate schools in the nation. We must meet higher standards than other college students, and for good reason. As commissioned officers, the nation will entrust us with defending our country. As an officer, I will be directly responsible for powerful weapons of destruction and, more importantly, for the lives of the men and women in my charge. This awesome responsibility is not for any individual who has shown serious character flaws.

## **A Midshipman’s Sad Look at Cheating at the Naval Academy**

*The dormitories of military academies smell like starch, shaved heads and soap. This piece has that same blunt feel. It’s about the loss, through corruption, of an important specialized tool. If the author were my son, I wouldn’t know how to answer the question he asks here. Let me know if you can. —JS*

On December 14, 1992, as a second-class midshipman (a junior) I, along with seven hundred others, took the final exam in Electrical Engineering 311. While I studied the night before, stolen copies of the exam were circulating through our dormitory, Bancroft Hall. I don’t know if this is a common occurrence at most schools, and I really don’t care. I don’t know how the exam got there, and I don’t care to know. What I do know is that the widespread cheating by midshipmen and the apparent cover-up by the naval officers who are my school’s administrators was a shameful violation of everything I believed in when I chose to attend the U.S. Naval Academy.

Soon after the exam, word spread through the brigade rumor mill that cheating had occurred. Any time four thousand people live and work in the same building, secrets are hard to keep, especially when there are many involved. Most of us in the brigade expected that the officers would pursue these rumors aggressively. That did not happen. The superintendent of the Naval Academy asked for anyone with knowledge to come forward and appear before the midshipmen who run the honor boards. Although a few who were forced by classmates did come forward, most of the midshipmen who had cheated shut their mouths and went on with



their lives with what appeared to be an absolute lack of remorse. As the investigation wore on through the month of January, rumors started circulating through Bancroft Hall of the involvement of as many as 150 mids. This had the potential of resulting in the dismissal of more than 10 percent of our class. After all, these mids had violated all three tenets of the honor code: they stole the exam, then cheated, then lied under oath.

When the investigation was done, the administration accused only twenty-eight midshipmen of cheating. Officers withheld information from midshipmen honor boards hearing the cases. The superintendent dismissed only six of my classmates from the brigade. This destroyed morale in the brigade. There were upwards of 120 cheaters among us, and it was obvious that the administration was content to let them stay in our ranks. It became a shared belief that they wanted to avoid a public scandal due to the large number of cheaters. My classmates and I knew that members of our class had stared the honor board in the eye and lied. There was nothing we could directly do. It fell upon the administration to remove them from our ranks. The Navy officers chose to do nothing. It made me numb with anger. My peers and I had discussions about resigning rather than being a part of a class of cheaters. It would have meant a three-year tour of duty as an enlisted man. This was preferable to graduating in a class known throughout the fleet as full of cheaters. Eventually, after reports of a cover-up ran in a local newspaper, and midshipmen complained about the poor handling of the investigation, the chief of Naval Operations called on the Navy's inspector general (IG) to conduct an administrative investigation into what went on. When the IG's report was complete, 133 of my classmates stood accused of cheating

and the Naval Academy's superintendent, a rear admiral, was on Capitol Hill trying to explain what went wrong on his watch at the Academy.

The question of what went wrong at my school and with so many of my classmates' integrity is difficult to answer. Part of the answer lies in changes in what's acceptable in today's society and changing priorities in the last thirty years in the Navy and the Academy. We now live in a world where instant gratification is the norm. It is not uncommon for us to read in the newspaper of politicians cheating and of widespread drug abuse, and to see numerous advertisements for things that promise a "quick fix." We recently elected a president who we knew had avoided the draft, who didn't deny cheating on his wife, and who, with a wink of the eye, told us he didn't inhale. The members of the Brigade of Midshipmen are a relatively accurate cross section of American values. An unfortunate characteristic of theirs is that they will do whatever it takes to get ahead in a stressful, competitive environment no matter how their character suffers. (Ironically, some of the cheaters had an A in the class until then. They didn't need to cheat to pass. They took a short cut because it was easier.) Over the past few decades, America as a whole has started to reward and endorse these short cuts. While society may accept this, it cannot exist in the military. This "end justifies the means" way of thinking has no place in an environment where so many lives are at stake.

The Navy has changed. The ships, aircraft, and weapons are complex electronic systems. It is a highly technical force with intelligent sailors and different leadership challenges than even ten or twenty years ago. The academic emphasis at the Academy has changed to reflect the perceived needs of the Navy. The

technically focused program allows even an English major the opportunity to go to nuclear power school and to serve on a nuclear submarine. The Navy has tried to fit a five-year technical curriculum into four years. Many of the bedrock standards of the past have slipped too low on our list of priorities. I have taken many four-credit-hour courses in chemistry, physics, electrical engineering, and weapons and systems engineering. But I've taken only two two-credit-hour courses on ethics and leadership. The few lectures that I've had on honor and the Honor Concept at the Academy have usually been upper-class midshipmen reading a memorandum verbatim to a group of either sleeping or snickering underclass mids.

Honor was not the most important thing at the Academy. While the need for people with technical knowledge and skills is great in today's Navy, the need for men and women of integrity is greater. (My father proudly points out that the superintendent of West Point said, "My job is character development. Period." Sadly, I have never heard that type of statement from my own superintendent.)

I lock my valuables up when I leave since I know it's likely that another mid will steal my watch, ring, or wallet. Some midshipmen lie so regularly that everything they say in an official status must be checked. One retired officer told me that when he was a midshipman he would not have thought twice about leaving money on his desk and his door propped open when he went away for a weekend. He said that he could have guaranteed that it would be there when he got back. I told him that I was all but certain that my valuables would be gone before my car left the parking lot. It is shocking to the officers who graduated from the Academy twenty or thirty years ago that the Honor Concept is no longer sacred.



## The Modern Warrior

Most of the graduates I've talked to are stunned by the number of mids involved in this scandal.

The questions I now need to answer are these: What are the implications of this scandal and why are they important? A service academy is unlike any other school. We get a technical degree and a commission in the armed forces. We also have to obey the rules of the Academy or be subject to dismissal. We pay nothing toward the cost of more than \$200,000 to educate and commission one midshipman. But, we have a contract with the nation. In exchange for the commission we serve a minimum of five years after graduation in the naval service. The taxpayer wants the best product for the money. I don't know anyone who is willing to pay \$200,000 to commission a lying or cheating Navy officer to lead men and women into combat. The Navy is cheating the taxpayer by commissioning someone who lacks the integrity to lead America's young men and women into harm's way.

On the surface, cheating on the electrical engineering exam may not seem like a big deal. How could this compromise the integrity of a ship or destroy the combat readiness of a unit? The problem is the precedent it sets. There was no remorse. There were no consequences. Translating this into the real world, it becomes easy to sign off that one of your enlisted sailors has performed a maintenance check on the ship's missile system even if you are unsure. It becomes a crisis if the missile system doesn't work and can't defend the ship under attack.

The reason the Honor Concept at the Academy exists is to touch on the concept that integrity is the most important attribute that a combat leader can have. Men and women will not willingly lay down their lives in defense of their nation and her freedom if the leader asking them to do that is not honorable.

• **The Modern Warrior is not one who goes to war or kills people, but rather one who is dedicated to the creation of a more vivid peace.**

• **The Modern Warrior honors the traditional warrior virtues: loyalty, integrity, dignity, courtesy, courage, prudence, and benevolence.**

• **The Modern Warrior pursues self-mastery through**

**will, patience, and diligent practice.**

• **The Modern Warrior works to perfect himself or herself not so much as a means to achieving some external goal as for its own sake.**

• **The Modern Warrior is willing to take calculated risks to realize his or her potential and to further the general good.**

• **The Modern Warrior is fully accountable for his or her actions.**

I'm lucky in that I grew up in a home where I learned by daily example to do the right thing because it was the right thing to do. Too many of my classmates did not get that valuable lesson at home and missed it somewhere along the way at the Naval Academy. The Academy needs to rekindle that pride that comes with doing the right thing. They need to rekindle the pride in going to the premiere commissioning source in the military. The task ahead of the Naval Academy is not an easy one. Only through daily example can the Academy leaders demonstrate and instill the values represented by the Honor Concept. 🍀

• **The Modern Warrior seeks the inner freedom that comes from the study of esthetics, culture, and the wisdom of the ages.**

• **The Modern Warrior respects and values the human individual and all life on the planet. To serve others is of the highest good. To freely give and accept nourishment from life is the warrior's challenge.**

• **The Modern Warrior reveres the spiritual realm that lies beyond appetites and appearances.**

• **The Modern Warrior cherishes life and thus conducts his or her affairs in such a manner as to be prepared at every moment for death. In this light, he or**

**she is able to view all complaints, regrets, and moods of melancholy as indulgences.**

• **The Modern Warrior aims to achieve control and to act with abandon.**

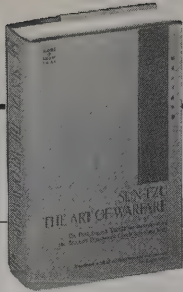
• **The Modern Warrior realizes that being a warrior doesn't mean winning or even succeeding. It means putting your life on the line. It means risking and failing and risking again, as long as you live.**

**When the samurai Kikushi was ordained a bodhisattva (one devoted to lifelong service), his master told him, "You must concentrate upon and consecrate yourself wholly to each day, as though a fire were raging in your hair."**

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## Sun-Tzu: The Art of Warfare



Almost every early Chinese thinker saw warfare as a domain of philosophical inquiry, and an intimate connection between philosopher and warrior. Roger Ames explains how, a model of harmony that gives equal importance to the quest for wisdom and the struggle for victory. Understanding how Sun-tzu's philosophy was applied, we see the possibility of grounding his wisdom in practice.  
—Richard Strozzi Heckler

- At first be like a modest maiden, And the enemy will open the door; Afterward be as swift as a scurrying rabbit, And the enemy will be too late to resist you.

### The Art of Warfare

Sun-Tzu. Ballantine Books, 1993; 319 pp. ISBN 0-345-36239-X  
\$25 (\$27 postpaid) from Random House/Order Dept., 400 Hahn Road, Westminster, MD 21157; 800/733-3000

## The Globalization of Arms Production • The Bottom-Up Review

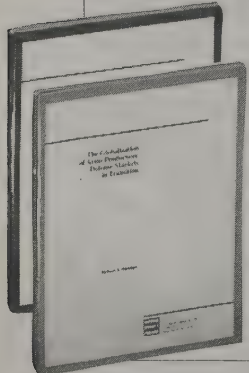
The downsizing of America's defense industry is happening without a plan. The technical communities involved in complex projects are rapidly being converted into intellectual ghost towns. The companies charged with nurturing these information refineries are behaving predictably and seeking to preserve their fragile ecosystems.

The net result is increased propagation of weapons. Very strange peace dividend! These two reports are a good tutorial on cause and unintended consequence. —JS

**The Globalization of Arms Production**  
(Defense Markets in Transition)  
Richard A. Bitzinger. 1993; 52 pp.

**The Bottom-Up Review**  
Andrew F. Krepinevich.  
1994; 63 pp.

Both \$10 (\$12.50 postpaid) from Defense Budget Project, 777 N. Capitol Street NE, Suite 710, Washington, DC 20002; 202/408-1517



## Leading the Way

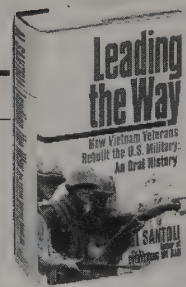
This is an inside perspective of the reform of America's military over the past thirty years. It chronicles the struggles of men and women who stayed true to their warrior ideals despite great odds. This book helps mend some of the pain and outrage of the Vietnam era. —Richard Strozzi Heckler

- The other thing that bothered me was how regimented the teaching was: "This is what we want you to say, Major." A monkey could've taught the lesson plan. It was geared for the latter part of the Korean War, with static trench warfare. That was the origin of the ill-conceived tactics we took with us to Vietnam. . . .

I made a personal decision: "I don't care if I ever get promoted again or not. I'm going to do this right. I'm not going to puppet the lesson plan. I'm going to teach whatever I think is best, because the Marine corps is not going to give me a better way to do it. They can fire me, they can court-martial me. But I'm not going to teach it wrong again."

- If a marine tells me that he is never afraid, there is something wrong with him. That's the type of person you want to stay away from. Yes, I was scared. . . .

Something else that I felt important to keep in check was that a lot of troops wanted to open fire. The 1st sergeant and I talked to a



### Leading the Way

(How Vietnam Veterans Rebuilt the U.S. Military)  
Al Santoli. Ballantine Books, 1993; 448 pp. ISBN 0-345-37498-3  
\$23 (\$25 postpaid) from Random House/Order Dept., 400 Hahn Road, Westminster, MD 21157; 800/733-3000

lot of them. We said, "Y'all don't understand. The minute you pull that trigger and kill somebody, your life is changed forever. That's a feeling you'll never get rid of."

They said, "Hell, Top, he's the enemy." I said, "That's right. But you've got to realize that "enemy" should be treated humanely. You are an American fighter. You are not a paid killer."

- We developed a value system. We said, "We don't care what society is doing. We aren't going to accept a drug problem, we will have urinalysis testing. And if people fail it, they're out. We know what type of people we need in here." And we developed an unstated belief or credo, "It ain't going to happen again on my watch."

## The West Point Way of Leadership

The chore of a military leader is motivating normal human beings to perform unspeakable tasks under unthinkable conditions. Since conscription was abolished in the United States, this skill has had limited usage in the culture. Curiously, the general level of confidence in our cultural leaders has also declined.

Maintaining personal and organizational integrity requires constant vigilance. The honor code is a set of unreachable standards that, when practiced well, give a leader the basis for personal discipline in the midst of chaos. Though it seems counterintuitive, military training tactics are fundamentally rooted in a deep respect for the individual.

This book is a good place to stop and ponder the costs and benefits of our current leadership models. —JS

- The first major lesson leaders must learn is to follow. The next is to trust and be trustworthy. Contradictory as it may seem, the third lesson is independence of mind.



### The West Point Way of Leadership

Larry R. Donnithorne.  
Doubleday & Co., 1993; 179 pp. ISBN 0-385-41703-9  
\$20 (\$22.50 postpaid) from Bantam, Doubleday, Dell/Fulfillment Dept., 2451 S. Wolf Road, Des Plaines, IL 60018; 800/223-6834

- Why does the Academy think it a good idea to elevate the cadet's sensitivity to moral issues of going to war and fighting wars? Why should leaders think about the basic morality of their situations? It's crucial because leadership entails having a mind broad enough to sense when the organization is wrong and a heart courageous enough to do something to fix it.



# A Chorus of Stones

BY SUSAN GRIFFIN

*Same dilemma, different setting. Susan Griffin looks at a woman's struggles with right, wrong, and reality at the Oak Ridge nuclear plant. This piece is excerpted from her book A Chorus of Stones (Doubleday, 1992). —JS*

**I**t was in another winter, two years before I met Israel, that I was approached by a woman who wanted to tell me how she had reluctantly participated in a series of anonymous falsehoods. She had been working for the Department of Energy. It was soon after the accident at Three Mile Island. Congress had mandated that the safety of nuclear power plants be studied. The department put her in charge of determining what kind of training the operators at plants were receiving.

Like a runner from the battle of Troy, she told me her story in great gulps of speech. Yet, despite her urgency, her approach was careful. I listened carefully too, sensing she might be struck dumb at any instant, not from any outside force so much as her own fear.

She had written not one but two reports, she told me. The first report showed serious, even dangerous inadequacies in training programs for those who daily operate the control boards of nuclear power plants. But Congress never received this report. It was buried from the public eye. It was only the second report, done at the request of her supervisors, and omitting several revealing questions, that Congress ever saw.

After she did the second study, she quit her job. Now she wanted to give the first report to someone. Would I take it? She did not have it with her. We met in Kentucky, but the report was in Tennessee where she still lived. I would have to return to the South and visit her there.

It was over a year before I could come again, and circumstances had changed. She had searched for work for several months, until the money she saved was almost gone. Her old job was still there, and she took it. She could not give me the report now. At least not for publication. Did I understand? It would mean the loss of her livelihood. But still she wanted me to visit her. She would tell me her story in greater detail, and show me the inner workings of the place.

The ground was cold and the grass turned brown, the way it does in winter east of the Rockies. I had been to Appalachia before, but never in this season. Still there was a beauty that surprised me. The doe-brown hills were soft like the soft speech of the region. Lee's rented house, though it was in a working class neighborhood in Knoxville, was surrounded with an expanse of grass and trees. It was made of wood, white, with a sitting porch all along the front.

It was because she loved the Appalachia that she first accepted the offer of a job at Oak Ridge. The research facility that produced fissionable material for the first atomic bomb is situated just outside Knoxville in what was once farm country. It is not too far from the mountains and it shares the culture of the whole region, a culture laid close to the land, familiar with poverty, rebelling against authority yet submitting to seemingly anonymous powers, a culture rich unto itself, with its own vocabulary, its own style of guitar play-

ing, woodcarving, dance, storytelling and wit.

Now writing, I find some irony in this, that her desire to work in the nuclear industry came from a sense of integrity, the wish to live and work in the place where she was born. Though she knew weapons were made there, the original purpose for which she was hired was innocent enough. A private contractor for the Department of Energy was studying the effects of weatherizing the houses of the poor, and she would assist in that study.

A few days after I arrived she drove me into and around this community. Before she moved to Knoxville she had settled in Oak Ridge itself, the community that was planned around various nuclear plants and research facilities. The first sign to her that something was wrong here was the absence of that soft, musical Appalachian speech so familiar to her.

I recognized a look to the place; it was the same look that had come over the San Fernando Valley where I grew up in the middle fifties. Old farms, orchards, fields, replaced by low concrete buildings, thrown up almost overnight, shopping malls housing chains, with a manufactured look, as if life itself were the prefabricated product of an assembly line and lacking any history, or at least missing all memory of the past. How did it happen? There was some



planning. It took place quickly, in the heat of war, under the aegis of the military. Iris, who lived with Lee and was her lover, had seen some of the plans. Her father was a machinist at Oak Ridge and she had grown up there. She described these plans as we sat in their kitchen one night. A separate sector for African-Americans was engineered into the ground plans. And another sector for plant workers, machinists, secretaries, support people, in undistinguished rectangular buildings with thin walls fronted by asphalt parking lots. This was where Iris's parents still lived and it was where Lee lived before she moved

ture of terrible weapons. But this placidity was like the calm of someone given to hysteria or violence who has been tranquilized. There is a dull calmness that is too still, and then the stories that every once in a while migrate to the surface. The animal laboratory, a nondescript building surrounded by green, looking for all the world like a dentist's office, housing, according to Lee, strange creatures such as six-legged pigs who still survived after years of experiments to determine the genetic effects of radiation. The results of those experiments were labeled top secret. And no one was allowed into that building without a

But who is the Count? And how does one get to the castle? Who gives the proper authorization? Who can tell us why things are the way they are? There was in Oak Ridge no single Count, no single castle, but instead many shadowy Counts, like strange magnets acting at a distance, known only by the indecipherable patterns of what lay within their purview.

As if she were describing this vacuum of identifiable power, pointing out an enclosed piece of the landscape to me, Lee said, *These are called orphan lands*. The phrase had originated among local people to name those parts of what had been local ground, now mysteriously sealed off by some agency at Oak Ridge. The sense of humor is not new. There is a history of absent power in this part of the country. Near the end of the nineteenth century British and Northern capital combined to buy up tracts of land in Kentucky and Tennessee for mineral rights. Hence came the big mines and company towns, and governments within governments whose real power issued from far away.

There were of course small rebellions as well as sly remarks, and for this too the region had a history. It was settled by mountain people, men and women who had forged their way farther and farther into lands ungoverned by white men, people who preferred as little governance as possible. Now there were the burials, for instance, headstones you might encounter anywhere along the turnpike. According to an old Tennessee law, all public lands can be used for private burial, and Lee took these burials to be a mute protest against the seizing of public ground. Of course I read another irony into this image of the dead lying all about these offices from which issued instruments of death.

Lee was born in the coal mining mountains of Tennessee and she had an aching love of the region. Her family was poor but her father had had some education. He was a preacher. One summer she told me she had had to spend every night, seven days a week, sitting in a tent hearing another preacher deliver his sermons, with that unremitting harshness of purpose and predict-

I imagined then a *new* employee, perhaps just licensed, sitting at a **control board**. As his or perhaps her hand reaches for a particular lever, does she know what *process* she sets in motion, or does she make this motion through a **fog** of reassuring language, any sense of danger or her own **ignorance** dulled by the seeming normalcy of her **s u r r o u n d i n g s** ?

to Knoxville. The nicest sector, wooded and comfortable, with front lawns and back yards, and shaded drives ending in circles, was reserved for the scientists and the administrators.

Yet, though there was a hierarchy from the beginning, the look of the place pointed to no seat of power. There was no domed capitol, no ceremonial arch, no wide boulevard leading to an impressive set of marble steps. One sensed instead a hidden power, inaccessible both to the eye and, in some cases, even to reason. There were the omnipresent yet never declared *plans*, unassailable for reasons of national security, dictating that chain link should be thrown around a field, or that access to an old country road be suddenly forbidden. Who ordered this and why was never known.

The place looked amazingly peaceful, even placid, for the site of the manufac-

ture. But for what purpose did they still keep the animals?

And then there was the story Lee told me about a truck carrying spent fuel rods that had turned over on the pike. The Department of Energy sent a friend of hers, a photographer, out to document the accident, but in the middle of taking pictures he found himself pinned down by two guards, a pistol pointing at his head. They tore the film from his camera and threatened to arrest him. When finally he convinced them to look at his credentials, they said he did not have the right authorization.

*The village belongs to the castle, Kafka wrote earlier in the century, and whoever lives here or passes the night does so, in a manner of speaking, in the castle itself. Nobody may do that without the Count's permission.*



able repetition which characterize evangelical rhetoric.

The world of fundamental religion does not recognize even the slightest variation in meaning should this meaning fall outside its own definition of truth. It is only now that I write that I wonder if such a tightly circumscribed structure of thought makes up for early, painful and unaccountable losses. Even the loss, for instance, of all the daylight hours, of one's life force, taken year after year by an obscure and distant ownership, the loss of dignity which comes from poverty and need, by which one is reduced to fear, or begging, or doing what does not seem entirely right, the loss of selfhood when nameless others have so much power over one's life. Just like silence, this loss is repeated from one generation to the next so that its occurrence too seems inevitable.

But all systems of thought, especially if they are rigid, are bound to fail at one moment or another. This happened to Lee's father just after the Second World War. Every explanation for existence he had memorized stood mute before what he witnessed. He had been sent to the South Pacific. And then, six months after the bomb was dropped, he found himself in the ruins of Hiroshima. He would describe it to his children, the spectacular dimensions of the damage. But the crumbling of something inside him could hardly be described. Lee's mother said it more simply, *Nothing before or since had so destroyed him*, she said. *He returned shattered.*

Was it then, shaken and stunned, in the paucity of anything else that might help him survive or even understand what he had seen, that, though all he believed in before had failed this test, still he drew the old beliefs more tightly around him, the same way an abused child clings more desperately to the abusing parent? Certainly it was that way with his idea of manhood. And his sons suffered from this. *The boys were smacked down*, Lee said, *for not being men, on the one hand, and then for being too much men.*

Both sons ended up in various kinds of trouble. The older one started to pull himself together after the younger son was found dead in a drainage ditch. He had been taking drugs and then walked home through an icy countryside in just his shirtsleeves. When he fell asleep he

must have tried to warm himself by lying in this cradle in the earth.

The requirements of gender are like the omnipresent yet partly hidden plans of a secret bureaucracy. I am thinking of Franz Kafka, how he was a small man, in some way unmanned by the terrifying figure of his father, whose standards he could never achieve. It was the critic Walter Benjamin who noticed that the last sentence of *The Trial* speaks of shame: *It was as if the shame of it must outlive him.* Certainly a soldier,

Like a runner from the battle of **Troy**, she told me her story in great gulps of speech. I listened carefully, sensing she might be struck dumb at any instant, not from any outside force so much as her own fear.

judged on the battlefield by his manhood, is compelled by a fear of shame and the desire for a glory that will survive him. Does the shadow of a soldier's life fall over every man?

And is there not shame at the core of all one learns as one learns propriety? The body a terrain of forbidden acts. Hungers, expressions, evidences of flesh permeating an atmosphere of denial. Shame commingling with skin, cells, bone, even breath.

If the shame is intense enough it outlives anyone it touches, whether man or woman. I am still thinking of gender. How shame drives this unbending structure to which we must mold ourselves. In the true logic of this system, if one does not conform, one ceases to exist at all. And any continued evidence of existence is the subject of shame. It is this feeling, that one ought to be invisible, hardly heard, barely making any impression on the whole, that wraps itself inconspicuously through every paradoxical turning, transforming even anger over compromise and loss and discomfort into an energy that sustains the monolithic judgment.

That Lee was a lesbian was a fact only half disclosed where she worked. Though there were those who knew, the truth of her life was never openly discussed. We are all, even the most orthodox among us, used to such little lies of being. We make subtle changes in posture, or dress or speech, to match an occasion at which convention is required, becoming more manly, more lady-like for a period, until, returning home, we feel more ourselves. Moving from home to work, Lee suffered a daily transformation. Was this part of what allowed her to continue to participate in what she did not condone?

She told me this story. One of her colleagues was a gay man. She was the only one where they worked who knew. Was it the need to keep his private life hidden that made him seem so closed? It is an effective way to keep a secret, to reveal nothing at all of oneself. This strategy need not be planned. Silence over any subject tends to grow. One thought, one moment multiplies until everything is buried and not speaking is a habit. But one day he opened up to her. He had been sent across the country to speak before assemblies of high school students and tell them that the manufacture of nuclear weapons and nuclear power was entirely safe. He knew this was not the truth. But he did it. *How do you live with something like that?* he asked her, and then sank back into his habitual silence.

We sat in the kitchen together eating food familiar to me from my grandmother's southern Illinois childhood, while Lee and Iris spoke of the discomfort they had with this work. Iris



had been in love with science and particularly the subatomic world of nuclear physics ever since she could remember. Physicists and engineers had been the heroes of the world she knew. They were the heroes of my world too, growing up in the decades after the war. One felt as if these scientists held a key to an arcane world of meaning once open only to mystics or the most sensitive of theologians. In Iris's world they must have seemed to have the power of God to make and destroy worlds.

But in order to enter the world of meaning, Iris would have to work at cross-purposes with her sense of what was right. The only available employment in the field of nuclear engineering was in the weapons industry. Would she then, over time, sink like Lee's friend at work into a silence that erases all meaning?

The process is like a kind of erosion, diminishing the capacity to see as well as speak. Iris knew now that she had been swimming as a child in polluted waters. Had it affected her health? I asked her. *No*, she told me. But later I learned she had serious arthritis in her hip, requiring surgery, causing her continual pain. A coworker of Lee's, an industrial safety engineer, had also never made the connection between her own breast cancer and her frequent presence at the Y-Plant until Lee interviewed her for me.

Lee never intended to work in the nuclear industry. After a while the weatherizing contract was completed. And then she found herself presented

with contracts of another kind. The transition was smooth, barely perceptible. When she did leave, her resume showed that she had the greatest experience in the nuclear field. The sense of wrongdoing she felt simply leadened her speech, her gait. She felt as trapped as the *orphan lands*, enclosed in an exclusive world, with its own ethics, its own standards, even its own language.

It is language of disguises that has evolved over four decades, so that it is no longer so strange to speak of a nuclear accident as an *event*, or the explosion at Three Mile Island as a *normal aberration*. All bureaucracies contain such obfuscating terms. It was part of Kafka's brilliance to capture what he called *officialese*, the language of the military and the government that was introduced to Central Europe by Frederick the Great in an attempt to make his armies uniform and obedient. It is an impersonal language, purged of feeling, disembodied, uttered as if by no one with an earthly existence.

*One must lie low, Kafka wrote in The Trial, no matter how much it went against the grain, and try to understand that this great organization remained, so to speak, in a state of delicate balance, and that if someone took it upon himself to alter the disposition of things around him, he ran the risk of losing his footing and falling to destruction, while the organization would simply right itself by some compensating reaction in another part of its machinery — since everything interlocked — and remain unchanged, unless, indeed, which was very probable, it became still more rigid, more*

*vigilant, severer and more ruthless.*

As she spread the two reports she had written before us on the kitchen table, Lee warned me again not to reveal her name or the contents of the first report. Not unless she succeeded in leaving, one day, and in finding other work. Together we read the figures and graphs, Lee translating them into the actual circumstances they represented until gradually I began to see that the boundary separating her world from mine was illusory, as I too, and all I loved, was swept toward the same catastrophe.

When nothing is going wrong, she told me, it is a very easy task to run the control board for a power plant. But if a crisis is brewing, as many as twenty-seven gauges might need to be read, while the same number of lights are flashing, together with buzzers sounding. The effect is pandemonium. The wrong decision can make matters much worse. A crisis can accelerate rapidly, even in a matter of minutes or seconds, becoming irreversible. But the right decision cannot be reached without a thorough knowledge of how nuclear plants function, both theoretically and practically.

The board is shaped in a horseshoe and contains literally dozens of gauges, meters, knobs and switches, many of which look alike. To make matters worse, new technology has required additional gauges and switches, but instead of redesigning existing boards, manufacturers have simply made panels to be added. Often these are placed in back of the operator and in some cases across the room. Even for a well-educated operator the task is difficult.

But at the time she did her study, not even the senior licensed operators who supervised other operators were required to have an undergraduate degree in any field of science. The nonlicensed operators were not even required to have a high school diploma. This placed a heavy burden on the training programs.

By far the most neglected area of training was in general knowledge. Few training programs taught their future operators the principles of thermodynamics. Few of those who operated the boards daily would be required to know what really causes an explosion and why, or even how nuclear energy is generated.

**It was** chilling now to think of the power plant near my home in **Diablo Canyon**. Never mind that it is built on an *earthquake* fault. Was that the plant in the study that offered only four hours' training in radiological protection **and control?**



One would hope that at least the future operators, lacking the education they needed to make intelligent decisions in a crisis, would be called upon to repeat certain procedures until they became habit. But very few of the training programs provided drills or simulated trials even for emergency procedures. Most practical experience was acquired on the job while using an activated board with all the attendant risks of failure.

What then was being taught and how? Answers to specific questions, those the industry knew would be on the licensing examination, were fed to the candidates in classrooms or on the job. Certain procedures were memorized but never practiced. Further, the examinations were half oral and that half was graded subjectively by the examiner, who was hardly qualified to judge. (This particular job was not popular, and so examiners had to be chosen from those who had been rejected for other jobs.) Finally, the industry was self-regulating, meaning that the examiners were hired by the industry, and the industry, always short of operators, wanted candidates to pass the test.

**I** imagined then a new employee, perhaps just licensed, sitting at a control board. As his or perhaps her hand reaches for a particular lever, does she know what process she sets in motion, can she follow the consequences of what she does all the way down the line, or does she make this motion through a fog of reassuring language, any sense of danger or her own ignorance dulled by the seeming normalcy of her surroundings?

Perhaps this is why in one plant a worker could decide to use a microwave oven, which was provided for employees to heat their lunches, to dry out a piece of radioactive equipment. Or why, in another plant, workers attempted to mend a hole in a pipe with a basketball.

It was chilling now to think of the power plant near my home in Diablo Canyon. Never mind that it is built on an earthquake fault. Was that the plant in the study that offered only four hours' training in radiological protection and control? Or was it one of the twenty-one out of forty-seven plants that offered no training in this field? Was it among the sixteen plants that did put their opera-

tors through drills? Was it among the seventeen plants that did not train senior licensed operators in systems design features and operating responsibilities? Was it the plant that offered its supervisors less than an hour of instruction in fuel handling? Or was it among the eighteen that did not train their supervisors how to handle fuel at all?

*To protect the city against siege a high wall is built around it.*

One likes to believe that somehow there is someone or something safe and infallible standing between oneself and cataclysm. I remember watching a public service film at my grammar school that showed firemen being trained to put out fires. Was that my father standing in the tower? He wore a blue uniform just like my father and jumped as my father was taught to jump from a high place into a net. Even as children, we understood the purpose of this, just as we understood our own fire drills. In case of emergency, you need to be ready. And practice makes perfect.

How then could those who made these decisions fail to provide drills for the operators of nuclear power plants when the flames there would be so much fiercer, so much more difficult to put out, spreading toxic fumes over an unimaginable expanse of space and time? And how could anyone, once the evidence was clear, choose to bury the document that sounded the alarm?

Yet perhaps it is the very extremity of the danger, bordering as it does on the continuity of life itself, the desire for safety as an ultimate state that seals away all fear as if into a foreign country, the wish for a miraculous, mysterious security won not so much by practical effort, or even through theoretical understanding, but by the determination to keep on in one direction despite every indication of trouble, hence vanquishing not only this danger but all catastrophe and every mortal mistake by a sheer act of will, a terrible fear of danger that causes this denial of danger.

But illusion has its own costs. There is also the fear that the unspoken will be spoken. I was intimate once with a woman who told small lies as a matter of habit. She would forget the telling of them, but still they seemed to accumulate, encircling her inner world with a hostile environment. Many old friends

and acquaintances were shunned and feared, as if their very presence might endanger an existence based on falsehood. Knowledge that is denied at the core is often pushed to the periphery. Is it not then predictable that one day the periphery will be observed making an assault on even the most carefully built fortifications?

*Before the development of the first cell it is speculated that by accident a protein spiroid engulfed nucleic acids and enzymes.*

Is it in defense of illusion that violence has come to surround the nuclear industry. The death of Karen Silkwood is one of several mysterious deaths that have occurred in many different locations. Who were the murderers? No one knows exactly. This contributes to the strangeness of the events. Lee and I talked to a doctor whose life had been threatened after he began organizing protests in his community. Many of his patients worked in the plants, and they continually told him about small accidents, emissions of radioactivity into the air, and so he was concerned about the health of his children. But the danger to his family became greater when bullets were fired into his home. He quit his practice and moved to another town.

Lee and I speculated about the report. The data were old. The industry could claim that everything had changed in the years since the study, though Lee doubted that it had. There was the scandal of the burial. The fact that the report never reached Congress. The lies implicated in this concealment. But was this enough to inspire violence? We assured ourselves it was not. Still, when I left, I wrapped the two reports in green shiny paper tied with a red ribbon to make them look like a Christmas present.

*The Aurelian wall built around Rome in the third century is nineteen kilometers long and strengthened at thirty-meter intervals with 381 square towers.*

What was I to do with what Lee had told me? Even if I never mentioned her name, she would be easily traced. I had promised to keep silent. And I did. What we both knew existed for a while in a kind of limbo, a borderland of disquiet and irresolution, that same silence into which so much had already fallen.

While I was visiting her in Oak Ridge, Lee told me one other story in passing.



Oak Ridge Associated Universities had participated in radiation experiments in the late sixties. They used terminally ill cancer patients. Lee thought some of them were the children of military personnel. The story stayed with me. It reminded me of what Israel Torres had seen, the men in the compound. And, of course, I could not help but think of the medical experiments performed in concentration camps that occurred in a distant geography during the first years of my life.

*It is probable that the next great advance took place when larger cells engulfed smaller cells.*

It was only several years later that I was able to verify Lee's story about the experiments. Neither the patients nor, in the case of children, their parents, were fully informed about the nature of the treatments offered. The study was funded by NASA. They wanted to know precisely what amount of radiation would produce nausea. Men were soon to be sent to the moon. If an astronaut, breathing through an oxygen mask, were to vomit, he would not survive.

I am thinking now of the mother of one of the irradiated children. When she looked on her son's small body, struggling to live, she was thinking neither of astronauts nor of the moon. He weighed less than thirty pounds now. There was so much that he had endured in his six years of life. When was it that she grasped that something more than a simple process of dying was taking place? Was there a slow widening arc to her discomfort, a sense that would not be still, of wrongness? Or was the injustice of it revealed to her suddenly, even if unnamed and obscure in its reasons, in a stunning moment of clarity?

*In the 13th century changes in classical Roman fortification are imported from the East by Crusaders. At Carcassonne, a second fortification encircles the first. A large round barbican joins the flank. The towers are hollow from the base, and galleries projecting outward are built of stone.*

This knowledge of course does not quiet the mind. One wonders then how such a thing came to pass, a child suffering in this way to bring men to the moon. The mind travels backward in time, tracing first this thread and then that, hoping to unwind the tangle and reach some clear place of origin.

But of course a solitary understanding is not enough. One wants others to know. How grateful was Israel Torres that I heard his story and believed him. And Nelle's story too sought a listener. Or a land of listeners, where all that had happened might come to rest, in the intelligent and curious mind of a shared grief.

For each solitary story belongs to a larger story. Now what took place cannot be told by the witnesses alone. So many of those who might remember — Von Braun, Truman, MacArthur — have died. Yet the story is still told if only as a mute legacy of deeds endured and enacted by the living.

*All plants and animals are made from cells.*

Lee finally left Oak Ridge in the summer of 1985. *We are talking about/leaving where we aren't seen/to go where we are more visible*, she had written in a poem. It was just nine months before the explosion at Chernobyl. History repeated itself. Once again there was denial. The evacuations were too slow. Many children suffered. Many are still ill and will fall ill in the future, unto many generations.

*The ideal city of the Renaissance is conceived as radial in plan since this connects the defensive resources at the center of the city to the protective outer walls at the periphery.*

Nowhere is there a record of all that has happened in human history, except in living consciousness. And does the truth each of us knows die along with us unless we speak it? This we cannot know. Only we know that the consequences of every act continue and themselves cause other consequences until a later generation will accept the circumstances created of these acts as inevitable. Unless instead this generation tries to unravel the mystery. And if they penetrate the secret whose scent persists in all eventualities, will they say, finally, this death, this wound, this suffering, was not necessary?

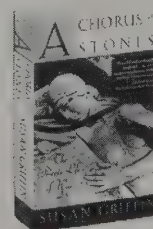
*The cells of the human body are differentiated according to function. There are cells which make up bone, muscle, blood. Cells which create immunity, send messages from one part of the body to another, cells which remember, understand, see.*

The last part of the story Nelle told me is not as dramatic as the vision of Israel

Torres. Yet it has weight as consequence and cause. The nuclear power industry and the factories that produce parts of nuclear bombs are situated not too far from the coal mining area of the Appalachia near the Kentucky-Virginia border. Thus it is not uncommon for the unskilled children of coal miners to migrate sixty miles and take up jobs in which, like their fathers, they are exposed to substances dangerous to their health. Nelle wears her protective clothing. She is mindful of the regulations. And yet accidents happen. This is one she told me about that did not get reported in the newspapers. The water from the cooling system of the plant where she works got mixed in somehow with the water provided for the workers to take showers. The men and women who work with plutonium are supposed to shower so that they can be decontaminated. But that day this mixture was not detected until after they took their showers. Every one of them set off an alarm as they attempted to leave the building because the showers had made them radioactive.

*Because of the introduction of firearms the radial plan is no longer essential, and fortifications which become more important in the Baroque period, are now hexagonal.*

This story doesn't have an ending yet. Except an old ending we've seen and known before, and learned to accept as if the gods had made it so. There are memories that perhaps we've buried together. And, as the song goes, . . . *the faces of my friends and kin are scattered just like straw in the wind.* ♣



**A Chorus of Stones**  
Susan Griffin. Anchor Books, 1992; 363 pp.  
ISBN 0-385-41885-X  
\$12.95 (\$15.45 postpaid) from Bantam, Doubleday, Dell/Fulfillment Dept., 2451 S. Wolf Road, Des Plaines, IL 60018; 800/223-6834



## Gunfighter Nation



*Frontier: a magical word. Romanticized frontier-tamers define the character-forming mythos of most nations. Itinerant swagmen in Australia; fur trappers in French Canada; pistol-packing cowboys in the US. That courageous cowpoke is still with us in advertising, politics and the pointy-toed boots on urban feet, including mine. With scholarly devotion to detail, **Gunfighter Nation** traces the pervasive development of America's frontier mythos through pulp fiction, movies and television, and shows how cowboy consciousness continues to form our collective psyche and deeply influence our politics. —Digger*

■ For Kennedy and his advisers, the choice of the Frontier as a symbol was not simply a device for trade-marking the candidate. It was an authentic metaphor, descriptive of the way in which they hoped to use political power and the kinds of struggle in which they wished to engage. The "Frontier" was for them a complexly

### Gunfighter Nation (The Myth of the Frontier in Twentieth-Century America)

Richard Slotkin. 1993; 850 pp.  
ISBN 0-06-097575-X  
\$20 (\$22.75 postpaid) from HarperCollins  
Publishers/Direct Mail, PO Box 588,  
Dunmore, PA 18512; 800/331-3761

resonant symbol, a vivid and memorable set of hero-tales — each a model of successful and morally justifying action on the stage of historical conflict.

● A good deal of the creative energy of the intellectual establishment goes into the criticism and demystification of old myths. This critical mood both reflects and adds to the public skepticism that is the product of hard experience. But the history of humanity gives us no reason to suppose that we will ever cease to mythologize and mystify the origin and history of our societies.

## Women in Praise of the Sacred

*Each set of poems is paired with a concise biography that shows how boldly these women pursued their spiritual destinies. Many had to choose between a sexual, householder life and a life of the spirit. In medieval Europe, they flourished best when they lived as nuns in supportive, all-women communities. Whatever their paths, they came to know God and their own enlightenment on the authority of their own experience. They often describe the quiet, intimate presence of a God who inheres in the body and in the particular — in a mustard seed, a lake, a begging bowl, a sapphire, a lamp, the bee's foot daubed with honey. Even the nuns have a sensual spirit. —Katy Butler*

● It's True I Went to the Market  
My friend, I went to the market and bought  
the Dark One.  
You claim by night, I claim by day.  
Actually I was beating a drum all the time I  
was buying him.  
You say I gave too much; I say too little.  
Actually, I put him on a scale before I  
bought him.  
What I paid was my social body, my town  
body, my family body, and all my inherited  
jewels.  
Mirabai says: The Dark One is my husband  
now.  
Be with me when I lie down; you promised  
me this in an earlier life.  
—Mirabai

● Of all that God has shown me  
I can speak just the smallest word,  
Not more than a honey bee  
Takes on his foot  
From an overspilling jar.  
—Mechtild of Magdeburg

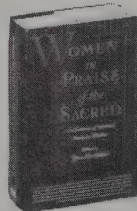
● This world,  
compared to You —  
a lake so tiny  
even a mustard seed  
is too large for it to hold.

Yet from that lake all Beings drink.

And into it deer, jackals,  
rhinoceri, sea-elephants falling.

From the earliest moment of birth,  
falling and falling  
in You.  
—Lal Ded

● From the mind  
of a single, long vine,  
one hundred opening lives.  
—Chiyo-Ni



### Women in Praise of the Sacred

Jane Hirshfield, editor. 1994; 224 pp.  
ISBN 0-06-016987-7  
\$22.50 (\$25.25 postpaid) from  
HarperCollins Publishers/Direct Mail,  
PO Box 588, Dunmore, PA 18512;  
800/331-3761

## The Getting of Wisdom

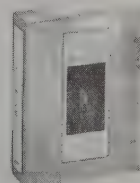
*This work is a joy. An American publisher has sensitively restored a great coming-of-age novel to its original 1910 glory in a gift edition with period Impressionist paintings.*

*Laura Rambotham's physical and hormonal journey from a secure home that she dominates to a frequently overwhelming boarding school is contemporary in all but setting. Australian women love this story; no wonder. Laura's struggle with sexual, physical and intellectual identity is a universal tale told in direct, simple, human terms.*

*(H. H. Richardson = Ethel Richardson. Bruce Beresford's 1977 film of this story is on video and good.) —Digger*

● Torn thus, between mutinous sentiments on the one hand, a longing for restitution on the other, Laura grew very sly — a regular little tactician. In these days, she was forever considering what she ought to do, what to leave undone. She learnt to weigh her words before uttering them, instead of blurting out her thoughts in the childish fashion that had exposed her to ridicule; she learnt, too, at last, to keep her real opinions to herself, and to make those she expressed tally with her hearers'. And she was quick to discover that this was a short-cut towards regaining her lost place: to conceal what she truly felt — particularly if her feelings ran counter to those of the majority. — For, the longer she was at school, the more insistently the truth was driven home to her, that the majority is always in the right.

● She began to return the liking, and with interest, after the manner of a lonely, bottled-up child. And everything about Evelyn made it easy to grow fond of her. To begin with, Laura loved pretty things and pretty people; and her new friend was out and away the prettiest girl in the school. Then, too, she was clever, and that counted; you did not make a friend of a fool. . . . whatever its origin, the good-nature was there, everlastingly; and Laura soon learnt that she could cuddle in under it, and be screened by it, as a lamb is screened by its mother's woolly coat.



### The Getting of Wisdom

Henry H. Richardson. 1993; 233 pp.  
ISBN 1-56279-042-0  
\$25 (\$27 postpaid) from Mercury House,  
201 Filbert Street, Suite 400,  
San Francisco, CA 94133; 800/998-9129



## Radical Honesty

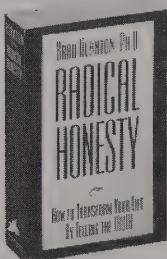
*A Washington, DC shrink, talking like a samurai or a zen master, cuts through the bullshit of "normal everyday life."*

*Honesty is the most rad policy of all!*  
—Stuart Chapman

■ People buy immeasurable loads of bullshit for the illusion of security. We believe security comes from principles and from controlling other people, but security doesn't exist. The only security we have is in our ability to fly by the seat of our pants. The being within which the mind resides yearns for freedom. The mind resists freedom. Freedom is antithetical to mind. The mind exists for survival. The mind was built to provide security, certainty, prediction, and control. The mind has surpassed its function of physical survival to ensure the survival of the "sea of suggestions" it long ago decided it was. The mind is a bullshit machine.

The main thing that can free a person from his or her own mind is telling the truth. Telling the truth is always interpreted by the mind as a threat to its security. When people think that who they are is their mind, they feel like they are committing

suicide when they start telling the truth. It scares the shit out of them and they wish it would hurry up and get over with. And they are committing suicide, in a way. What dies in telling the truth is the false self, the image projection we have presented to the world. All real suicides, where people really died, were the result of a battle between being and mind. In those cases, the mind won.



### Radical Honesty (How to Transform Your Life By Telling the Truth)

Brad Blanton. 1994; 292 pp.  
ISBN 0-9630921-2-X

\$15 (\$17.50 postpaid) from Sparrowhawk  
Publications, Route 1, Box 291, Stanley,  
Virginia 22851; 800/358-7884

## Anima

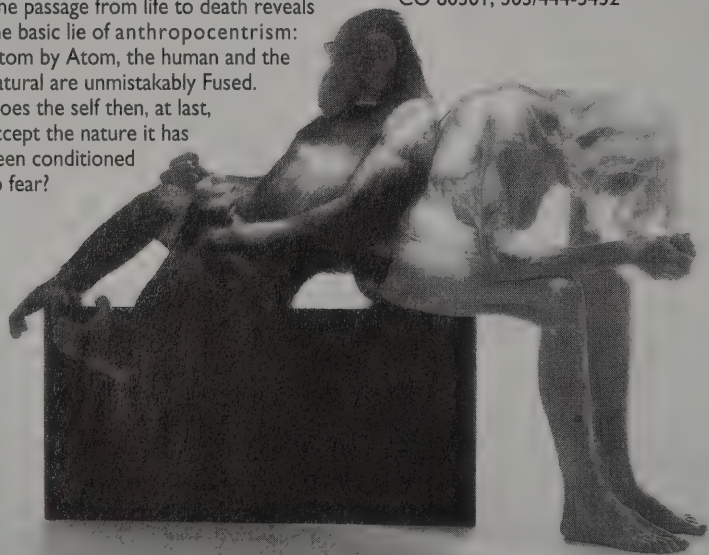
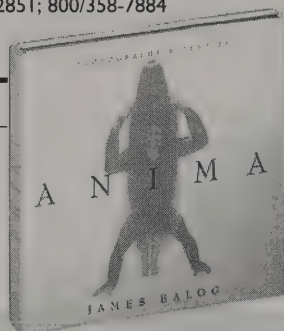
*James Balog moves us to consider our common primate ancestry at the mythic, archetypal — rather than taxonomic — level. We share with the chimpanzee 98.4 percent of the genetic material of which we are made; Balog provokes us through the poetics of image and word to feel the ties that bind. Evolution never appeared quite so sensual.*  
—Mira Zussman

■ The passage from life to death reveals the basic lie of anthropocentrism: Atom by Atom, the human and the natural are unmistakably Fused. Does the self then, at last, accept the nature it has been conditioned to fear?

### Anima

James Balog. 1993; 65 pp.  
ISBN 0-9636266-0-4

\$24 (\$27.50 postpaid) from Arts Alternative  
Press, 3200 Valmont Road, Suite 7, Boulder,  
CO 80301; 303/444-5432



## The Roots of the Self

*What is fixed genetically about behavior? What is not? What influence do race, sex, eye color, family order, or handedness have? Why can't I be just like her? Why is Eeyore a grump while Winnie-the-Pooh is ever blissful? Could they change? Could we change?*

*Human beings spend lots of time trying to figure themselves out, but our complexity makes self-understanding a difficult venture. While this book is not a formula for finding yourself, it offers an interesting functional theory to apply to that project.*

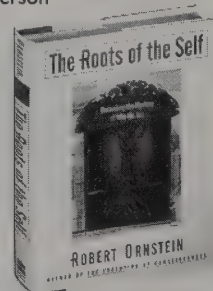
*It's physiology, but it's good reading.*  
—Carol Sumser

● The basics of individuality are laid down early: whether we're quick or slow, easily angered or not, sunny or sullen, active or idle. The high-level parts of the brain develop diversely in different individuals, depending on experiences and a myriad of factors. Simply put, three primitive systems that evolved long before human beings ever were a glimmer in God's eye are the primitive main roots of individuality. Each person lies at a point on the dimension of the system.

The first of these systems has the task of alerting the cortex, sending a stream of arousal messages to the higher parts of the brain. Many of these messages travel through the limbic system in the mid brain, where emotions are controlled. The limbic system sends out its own stream of messages to "wake up" the person to an event, such as "large object approaching fast!"

The second system involves the interplay between the ancient lower brain centers, which have precise preprogrammed plans for action, and the more recently evolved higher brain centers, which try to regulate these spontaneous actions and make plans of their own.

The third system governs the overall feeling tone of the person — whether one is sweet or sour, warm or cold; whether one characteristically approaches the world or withdraws from it.



### The Roots of the Self

Robert Ornstein. HarperSanFrancisco,  
1993; 240 pp. ISBN 0-06-250788-5

\$25 (\$27.75 postpaid) from HarperCollins  
Publishers/Direct Mail, PO Box 588,  
Dunmore, PA 18512; 800/331-3761



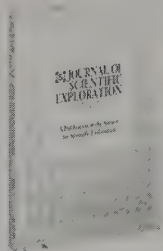
## Journal of Scientific Exploration

For years, the study of strange phenomena has been the province of tabloid journalists of the "strange-but-true" ilk, but lately more scientists have become interested in such things. The first thing they did, of course, was to christen their interest with the five-dollar name "anomalistics." The second thing was to begin publishing the *Journal of Scientific Exploration*. —Ted Schultz

- 1) Phenomena outside the current paradigms of one or more of the sciences such as the physical, psychological, biological, or earth sciences.
- 2) Phenomena within scientific paradigms but at variance with current scientific knowledge.
- 3) The scientific methods used to study anomalous phenomena.
- 4) The study of the impact of anomalous phenomena on science and society in general.

Concerning UFOs, we are not sure whether they are hoaxes, illusions, or real. If real, we do not know whether the reality

is of a psychological and sociological nature, or one that belongs in the realm of physics. If the phenomenon has physical reality, we do not know whether it can be understood in terms of present-day physics, or whether it may present us with an example of 21st century (or 30th century) physics in action. If one is, indeed, facing a problem of this magnitude, it is necessary to devote the utmost care to the scientific methodology involved in the project.



### The Journal of Scientific Exploration

Bernhard Haisch, Editor.  
\$45/year (4 issues) from The Society for Scientific Exploration, ERL 306, Stanford University, Stanford, CA 94305-4055; phone 415/593-8581, fax 415/595-4466

## Don't Know Much About Geography

*It's fun. It's engaging. It's Geography? Hard to believe, but yes.*

*Did an asteroid actually kill the dinosaurs? Is the world round or pear-shaped? What about Atlantis, and what the heck is geography anyway? Every reader will become geographically literate — an unavoidable byproduct of a journey through these pages. But more importantly, the book teases us with the fun of this knowledge, rekindling a wonder at our world and the exploits of humans who sought to understand it.*

—Sharon G. Johnson

### Are There Amazons on the Amazon River?

How did a race of legendary warrior women whom the Greeks thought lived near the Caspian Sea end up in South America?

To the Greeks, the Amazons were a race of brave female warriors who cut off one of their breasts in order to be able to carry their shields or to draw their bows with greater ease; their name derives from the Greek word for *breastless*.

### Who Swallowed the Sandwich Islands?

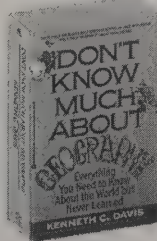
You won't find the Sandwich Islands on the maps anymore. They've been swallowed whole. That is, what once were called the Sandwich Islands have been restored to the

name used by the natives of this volcanic island chain, Hawaii.

The discovery and naming of the Sandwich Islands by Captain James Cook is a single chapter in one of the most extraordinary tales of exploration and discovery in history.

### What Does the Continental Divide Divide?

Let's start by explaining what it doesn't divide. A continental divide does not cut continents into equal pieces. One of those invisible boundaries that geographers find so useful, a continental divide is a line of high mountain peaks marking the point where a continent's rivers begin to flow in opposite directions. As the water flows down one side of the range or the other, its ultimate destination is set.



### Don't Know Much About Geography

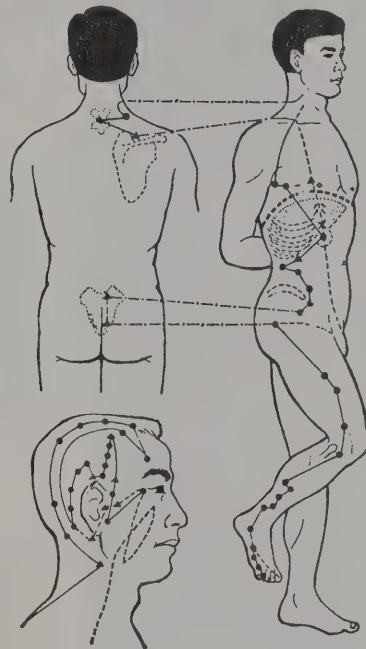
Kenneth Davis. 1992; 384 pp.  
ISBN 0-380-71379-9  
\$11 (\$12.50 postpaid) from Avon Books,  
PO Box 767, Dresden, TN 38225;  
800/223-0690

## The Complete System of Self-Healing

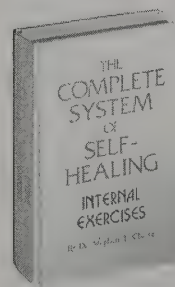
*Feel your sexual energy build as you contract your anal sphincter while you drive to work. Rub your stomach when you go to bed and know that the plaque will disappear from your arteries and inches will disappear from your waist. Dr. Stephen Chang lists these and many other exercises from a thousand-year-old tradition, the Tao of Revitalization, as a tried-and-true method of pursuing health and immunity from disease.*

*Dr. Chang reassures the Western mind with his references to the many modern scientific studies that confirm the benefits of these exercises.*

—Seamus O' Ciosain



Gallbladder Meridian



### The Complete System of Self-Healing

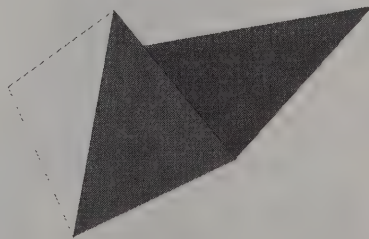
Stephen T. Chang. 1986; 224 pp.  
ISBN 0-942196-06-6  
\$21.95 (\$25.45 postpaid) from  
Tao Publishing, 2700 Ocean Avenue,  
San Francisco, CA 94132; 415/566-1332





Neo-Platonism is a progressive philosophy, and does not expect to state final conditions to men whose minds are finite. Life is an unfoldment, and the further we travel the more truth we can comprehend. To understand the things that are at our door is the best preparation for understanding those that lie beyond.

—*Hypatia*







# Digital Dark Horse — Newspapers

BY GEORGE GILDER

*Newspapers can be built on foundations of sand — the silicon and silica of microchips and telecom.*

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HE PERENNIAL QUESTION of all suitors of fate and fortune now whispers and resounds through conference resorts, executive retreats and consulting sessions across the land as business leaders from Hollywood to Wall Street pose with pundits and ponder the new world of converging technologies. Symbolized in a famous mandala by MIT's Media Lab, this grand fondue of information tools — to be served la carte on a flat-panel screen — is foreseen to be a \$3.5 trillion feast for American business sometime early next century. Few would guess that crucial to the emerging mediamorphosis — as king of the flat panel — will be a slight, graying, bearded man with some 30 teddy bears, Roger Fidler.

**MEDIA MIRROR ON THE WALL, WHO IS THE FAIREST OF US ALL?**

*George Gilder has an aptitude for seeing the future clearly and causing it. The father of early Reagan-era supply-side thinking has focused his aim on the "information superhighway." Excerpted from his forthcoming *Telecosm* (Simon & Schuster, 1994). —JS*

Fidler coined the term mediamorphosis as the title of his forthcoming book. His office in Boulder, Colo., looks out on the panorama of a picturesque downtown of red brick and neo-Gothic, surrounded by the Rocky Mountain foothills and sepia sandstone buildings of a mile-high Silicon Valley. Down the hall is an Apple Computer media center which is developing graphical forms of AppleLink, the company's on-line network. Down the block is Cablelabs, John Malone's research arm, which is designing the future of the cable industry.

Roger Fidler, though, is a newspaperman, a veteran of some 32 years in a business little known for technology. Beginning as an 11-year-old paperboy in Eugene, Oreg., Fidler went on to serve as a reporter, science columnist and art director before launching what is now Knight-Ridder Tribune Graphics. A multimillion-dollar business and reliable profit center, this venture provides digital graphics for newspapers and video animations for TV stations across the country over a dedicated network called PressLink, also launched by Fidler. Now Fidler and his allies working in Knight-Ridder's Information Design Laboratory are concocting an audacious plan to make the lowly newspaper the spearhead of the information economy.

Most information companies and executives are betting on him to fail. Barry Diller, the former ruler of 20th Century Fox, recently

circled the planet of technology on a celebrated pilgrimage from Hollywood to find where the money would be made in the new information economy. Shunning Fidler's little lab, he arrived at nearby Cablelabs and resolved on home shopping through cable TV. He bought into QVC for some \$20 million and went into business with John Malone. After a more corporate investigation, featuring polls and customer surveys, Robert Allen of AT&T settled to a remarkable degree on the \$14 billion market in electronic games. Since launching an alliance with Sega, AT&T has been collecting game companies as compulsively as your kid collects games. It has bought shares of Sierra Online, 3DO, Spectrum HoloByte and PF Magic.

Moving toward the news trade is IBM. But rather than collaborating with one of the thousands of newspapers that use its equipment, the computer giant is trying with General Electric's NBC in a kind of elephants' waltz into the sunset of old broadcast media.

Most of these leaders in the new gold rush toward multimedia are getting it wrong. Fixated by market surveys that map demand for existing video, they are plunging down dead ends and cul-de-sacs with their eyes firmly focused on the luminous visions in their rear-view mirrors. Blockbuster, Nintendo and other game and video vendors have good businesses, for the moment, but they are ballast from the past.



## NEWS IN THE MICROCOSM

The leader who best comprehends the promise of the next phase in information technology may be Fidler of Knight-Ridder. A student of electronic technology, he has grasped an amazing and rather obscure fact: of all the information providers, only newspapers are fully in tune with the law of the microcosm.

Based on the constant rise in the computing power of individual microchips relative to systems of chips, the law of the microcosm dictates that power will continually devolve from centralized institutions, bureaucracies, computer architectures and databases into distributed systems. On the most obvious level, it caused the fall of the mainframe computer and the companies that depended upon it, and assured the ascent of personal computers and workstations. In the next decade, the law of the microcosm will assure the displacement of analog television, with its centralized networks and broadcast stations, by computer networks with no center at all. While offering a cornucopia of interactivity, computer networks can perform all the functions of TV.

With the cost-effectiveness of chips still doubling every 18 months, the law of the microcosm is not going away. Now it dictates that of all the many rivals to harvest the fruits of the information revolution, newspapers and magazines will prevail.

The secret of the success of the newspaper, grasped by Roger Fidler, is that it is in practice a personal medium, used very differently by each customer. Newspapers rely on the intelligence of the reader. Although the editors select and shape the matter to be delivered, readers choose, peruse, sort, queue and quaff the news and advertising copy at their own pace and volition.

In this regard, newspapers differ from television stations in much the way automobiles differ from trains. With the train (and the TV), you go to the station at the scheduled time and

travel to the destinations determined from above. With the car (and the newspaper), you get in and go pretty much where you want when you want. Putting the decisionmaking power into the hands of the reader, the newspaper accords with the microcosmic model far better than TV does. Newspaper readers are not couch potatoes; they interact with the product, shaping it to their own ends.

Computers will soon blow away the broadcast television industry, but they pose no such threat to newspapers. Indeed, the computer is a perfect complement to the newspaper. It enables the existing news industry to deliver its product in real time. It hugely increases the quantity of information that can be made available, including archives, maps, charts and other supporting material. It opens the way to upgrading the news with full-screen photographs and videos. While hugely enhancing the richness and timeliness of the news, however, it empowers readers to use the "paper" in the same way they do today — to browse and select stories and advertisements at their own time and pace.

Until recently, the expense of computers restricted this complementary to newsrooms and pressrooms. The news today is collected, edited, laid out and prepared for the press by advanced digital equipment. Reporters capture and remit their data in digital form. But the actual printing and distribution of the paper remain in the hands of printers and truckers.

Now the law of the microcosm has reduced the price of personal computers below the tag on a high-end TV and made them nearly coextensive with newspapers. Newspapers and computers are converging, while computers and televisions still represent radically different modes. It is the newspaper, therefore, not the TV, that is best fitted for the computer age.

Newspapers can be built on foundations of sand — the silicon and silica

of microchips and telecom. Not only does the computer industry generate nearly three times the annual revenues of television but computer hardware sales are growing some eight times faster than the sales of television sets. By riding the tides of personal computer sales and usage, newspapers can shape the future of multimedia.

High-definition PC displays will benefit text far more than images. The resolution of current NTSC (National Television Standards Committee) analog television — 62 dots per inch — is actually ample for most images, particularly the studio-quality forms that can be converted for digital delivery over fiber-optic lines. Even the conventional interlaced TV screen — in which alternate lines are filled in every second — easily fools the eye for video. But for fully readable text you need the 200 to 300 dots per inch of a laser printer or super-high-resolution screen. Such screens are now being developed. Overkill for most images, they could supply the first display tablets with screens as readable as paper.

## FAT PANEL'S DIGITAL NEWSPAPER

After the "Rocky Mountain High" panorama, the first thing you see in Roger Fidler's office is a more modest tableau. At a round table in the corner is a huge teddy bear he calls Fat Panel. Fat Panel is poised to read a tablet that looks very much like a newspaper, but in fact is a flat-panel screen some nine inches wide, a foot high and a half-inch thick. Weighing a little over a pound, far less than the Sunday edition of your local newspaper, this device — call it a newspanel — might contain a trove of news, graphics, audio and even video, representing more than a year of Sunday papers. Through fiber-optic lines and radio links, it might connect to databases of news and entertainment from around the world.

On the face of this tablet is something that looks a lot like the page of a newspaper. It contains headlines for



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featured stories followed by their first few paragraphs and a jump to an inner page. The jump, unlike that in your usual newspaper, is electronic and immediate. You click an arrow with a pen or a mouse — or in the near future, say the word — and the rest of the story almost instantly appears. If your eyes are otherwise engaged, you can click on an audio icon and have the story read aloud to you.

Discreetly placed on the bottom of the panel are three sample ads. Since ads currently supply some 80 percent of the revenues of many newspapers and magazines, the entire system will rise and fall on the effectiveness of the ads. However, electronics promises a more total revolution in advertising than in any other facet of the newspaper outside of printing. This change comes none too soon. As shown by a general drop in margins from 30 percent in the mid-1980s to close to 10 percent last year, newspapers are suffering a sharp decline in conventional advertising revenues, only partly compensated for by an influx of funds from blow-in coupons and inserts.

In a 1988 prophecy at the American Press Institute in Reston, Va., Fidler envisaged electronic newspaper ads in the year 2000: "When you touch most ads, they suddenly come alive. More importantly, advertisers can deliver a variety of targeted messages that can be matched to each personal profile. An airline ad offering discount fares to South America attracts me with the haunting music of an Andean flute. I'm planning to take some vacation time in Peru next

month [Fidler's wife is a Peruvian recording artist], so I touch the ad to get more information. Before I quit, I'll check the ad indexes to see if any other airlines are offering discount fares. With the built-in communicator, I can even make my reservations directly from the tablet if I choose. The airline's reservation telephone number is embedded in the ad, and my credit card numbers and other essential data are maintained in the tablet, so all I would have to do is write in the dates and times that I want to travel and touch a button on the screen. The information is encrypted as well as voice-print protected, so there is no risk of someone else placing orders with my table.

Contrary to the usual notion, the electronic newspaper will be a far more effective advertising medium than current newspapers, television or home shopping schemes. Rather than trying to trick the reader into watching the ad, the newspaper will merely present the ad in a part of the paper frequented by likely customers. Viewers who are seriously interested in the advertised item can click on it and open up a more detailed presentation, or they can advertise their own desire to buy a product of particular specifications.

In deference to Fidler, who currently combs the world looking for the best flat-panel screens, Fat Panel appears to be perusing a story on field emission displays (FEDs). Even cathode ray tubes with VGA graphics command only 72 dots per inch of resolution. This has been shown to slow down reading by some 25 percent

compared with paper. Readers of Voyager Co.'s tomes on Mac PowerBooks quickly discover that even Susan Faludi's breezy *Backlash* or Michael Crichton's compulsive *Jurassic Park* or James Gleick's normally riveting biography of Richard Feynman bog down in subtle but insidious typographical fuzz. A newspaper with more than one item on the screen would be worse. The age of electronic text entirely depends on the development of screens with the definition of a laser printer. For this purpose, FEDs offer great long-term promise.

While the prevailing liquid crystal displays (LCDs) merely reflect or channel light, FEDs emit light like a cathode ray tube. Indeed, as currently envisaged by a Micron Display Technology process, FEDs will array millions of tiny cathode light emitters that allow bright displays with high resolution and full-motion video. Although today's FEDs require too much power for full portability with current battery technology, they represent an inviting option for newspaper tablets at the turn of the century.

Usable tablets, however, will arrive long before then. At the August Siggraph show, Xerox demonstrated a 13-inch-diagonal liquid crystal display with a record 6.3 million pixels, delivering 279 dots per inch of resolution. The 279 dots per inch provide some three times more definition than the screen of a Sun workstation — the current desktop graphics workhorse — and negligibly short of the 300-dot resolution of a laser printer.

Beyond resolution, the key to the newspaper tablet is portability. Portability means low power. Active-matrix LCDs are inherently a high-power, low-transmissive medium. The crystals absorb light; the polarizer wastes half the light; the transistors at each pixel squander power. For high contrast, backlighting is essential. That sinks another 20 to 30 watts. The higher the resolution, the worse all these problems become.



## FULL-MOTION IMAGES OR FULL-MOTION USERS?

According to the Fidler vision, the U.S. should stop emulating the Japanese, who boldly invested some \$12 billion in manufacturing capacity for power-hungry liquid crystal displays used on notebook computers and flat-screen TVs. Urged by the Clinton administration, this U.S. industrial policy is based on a strategy of "catch up and copy," and it will fail. Rather than chase the Japanese by achieving high resolution at high power to compete with cathode ray tubes, the U.S. should target high resolution at low power to compete with paper.

As in semiconductor electronics, the winners will follow a strategy of low and slow. The law of the microcosm ordains exponential performance gains from slower and lower-powered transistors packed ever closer together on individual microchips. Throughout the history of semiconductors — from the first transistor to the latest microprocessor — the industry has succeeded by following this law: replacing faster and higher-powered components with smaller, slower and lower-powered devices. When you pack enough of the slow and low transistors close enough together, your system may end up operating faster than a supercomputer based on the highest-powered and fastest discrete transistors. And it will definitely be more efficient in MIPS per dollar.

The law of the microcosm has not been suspended for displays. The Japanese have been focusing on high-powered screens capable of reproducing the features of low-end CRTs: full-motion color video. Rather than favoring full-motion video, however, the U.S. should foster full-motion readers through low-powered and slow components. It is the people rather than the pixels that should be able to move. Speed will come in due course.

Demonstrating the first prototype of such a system is Zvi Yaniv of Ad-

vanced Technology Incubator (ATI) of Farmington Hills, Mich. Long among the most inventive figures in America's eternally embryonic flat-panel industry, Yaniv was a founder of Optical Imaging Systems, currently the leading U.S.-based producer, with well under one-percent global market share.

For his tablet, Yaniv uses a material invented at Kent State University in Ohio called Polymer Stabilized Cholesteric Texture (PSCT). On it he inscribes pixels in the form of helical liquid crystal devices. The helices are chemically doped to give them a specific reflectivity: showing all wavelengths or colors of light that do not match the resonant wavelengths in the helix.

So far ATI has demonstrated images in black and white and in 16 levels of gray scale. Color, according to Yaniv, poses no theoretical problems. Based on current experimental successes, it will be achieved within the next two years. For the first newspaper panels, however, color is less important than the high-resolution text capability, which ATI delivers at a breakthrough price.

This technology offers four key advantages over the active-matrix LCD: no transistors, no polarizers, no color filters, no backlighting. Without these power- and space-hungry features, Yaniv's screens can achieve higher density of pixels at far lower energy use. This adds up to far higher resolution at milliwatts of power (rather than 20 watts) and at far higher manufacturing yields, and thus far lower cost. Yaniv predicts screens with laser-printer resolution and with contrast higher than paper, costing between \$1 and \$2 per square inch (compared with around \$10 for current active-matrix devices). That means 8-1/2-by-11-inch tablets for \$100 to \$200 in manufacturing cost, well under Fidler's target price.

Still an R&D project in an intensely competitive industry, ATI may not have all the answers, but it points the way to a solution. Within the next

three or four years, a portable tablet with laser-printer resolution and contrast and with hundreds of megabytes of solid-state or hard disk memory will be purchasable for an acceptable price. Fat Panel's tablet is not merely a toy; it is the token of a technology that will sweep the world.

## NEWS ON THE NET

Meanwhile, processor solutions are being rolled out on personal computers, Newtons, Zoomers and other personal digital assistants. Already collecting and transmitting copy in digital form, reporters and editors could just as well provide digital content to all the other platforms that are emerging in the 1990s, from tiny portable personal communications services to supercomputer knowledge bases.

Also empowering the newspaper industry will be the exploding new world of boundless bandwidth or communications power in both the atmosphere and the fibersphere (see *Forbes ASAP*, December 7, 1992, and March 29, 1993). One of the most difficult concepts for many business planners to grasp is the onset of bandwidth abundance: the idea that the electromagnetic spectrum is not scarce but nearly limitless. The text of a daily newspaper takes up about a megabyte; a hundred or so black-and-white photographs take up about 100 megabytes; 25 color photos could run another 100 megabytes, or even a gigabyte, depending on resolution. Video clips would take about 100 megabytes apiece. With just 500 megabytes, you could throw in the entire "MacNeil/Lehrer News Hour."

Summing it all up, the total bit-cost of a paper, including video-rich ads, might be comparable to that of a two-hour movie — perhaps two gigabytes with compression. Two gigabytes can be transmitted in a second down fiber-optic lines, in perhaps 10 seconds down a gigahertz cable connection, and in perhaps a matter of three or four minutes down a twisted-pair copper line equipped with Asym-



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metrical Digital Subscriber Loop (ADSL) technology, Amati Corp.'s amazing new phone-company access system. From Digital Equipment Corp. and Zenith to Hybrid Technologies and Continental Cablevision, several firms are demonstrating impressive ways to use cable lines for two-way digital data transmission at a rate of 10 megabits a second or more, which would fill up a two-gigabyte newspanel in just over three minutes. Electrical power companies also are laying fiber along with their power lines. All these pipes are little used for long hours of the night and could be employed to deliver newspapers.

Complementing this web of wires will be wireless methods of delivery. Cellular technology is moving toward a code division multiple access (CDMA) protocol that allows use of the entire spectrum every mile or so, and toward millimeter wave frequencies that offer gigahertz of capacity. Again, access to these systems might be expensive on a demand basis, but a newspaper can be sent whenever space or time is available. Delivery of the basic paper through wires and fiber and delivery of short updates and extras via the air would be optimal. Whatever electronic or photonic techniques are used, the laws of the microcosm and telecosm ordain that distribution of newspapers will become vastly cheaper, more efficient and more timely than their present methods: trucks and bicycles.

#### THE "DOMONETICS" OF THE WORD

The future of newspapers will not depend on technology alone, however. The ultimate strength of the

"press" comes not from its machinery but from its "domonetics" — a word that describes an institution's cultural sources and effects.

Judeo-Christian scripture declares that in the beginning was the word. There is no mention of the image. Today in information technology, the word still widely prevails. In 1992, trade publications, newspapers and magazines alone generated some \$73 billion in sales, compared with television revenues of \$57 billion.

In general, images are valuable as an enhancement to words. As Robert Lucky of Bellcore has pointed out, images are not in themselves usually an efficient mode of communication. In his definitive work "Silicon Dreams," just released in a new paperback edition, Lucky writes that after an evening of television, "we sink into bed, bloated with pictorial bits, starved for information."

People who gush that a picture is worth a thousand words usually fail to point out that it may well take a million computer "words" to send or store it. Written words are a form of compression that has evolved over thousands of years of civilization. In a multimedia encyclopedia, such as Microsoft's Encarta, some 10,000 images take up 90 percent of the bits, but supply perhaps one-100th of the information. With the pictures alone, the encyclopedia is nearly worthless; with the words alone, you still have a valuable encyclopedia. Most of the work and the worth are in the words. Supremely the masters of words, newspapers can add cosmetic pictures, sounds and video clips far more easily than TV or game machines can

add reporting depth, expertise, research and cogent opinion.

More profoundly, the domonetics of the new technologies strongly favors text-based communications. Video is most effective in conveying shocks and sensations and appealing to prurient interests of large miscellaneous audiences. Images easily excel in blasting through to the glandular substrates of the human community; there's nothing like a body naked or bloody or both to arrest the eye and forestall the TV zapper.

TV news succeeds because of timeliness and vividness. Compared with TV imagery, news photos tend to be late and lame. Nonetheless, for all its power and influence, broadcast television news is a dead medium, awaiting early burial by newspapers using new technologies.

The TV news problem is summed up by the two-minute rule — the usual requirement that, short of earthquake or war, no story take more than two minutes to tell. This rule even applies to the epitome of broadcast news — CNN. It is entirely a negative rule. The reason for it is not that the audience desires no more than two minutes of coverage of stories of interest. On any matter deeply interesting to the viewer, two minutes is much too little.

The rationale for the two-minute rule is that the viewer will not tolerate more than two minutes of an unwanted story. Its only function is to forestall the zapper, but its effect is to frustrate any viewer with more than a superficial interest in a story. Increasingly it reduces TV news to a kaleidoscope of shocks and sensations, portents and propaganda, gossip and titillation.

The new technologies, however, put individual customers in command. Making their own first choices among scores of thousands of possibilities, individuals eschew the hair-trigger poise of the channel surfer. Narrowcasting allows appeal to the special interests and ambitions, the



hobbies and curiosities, the career pursuits and learning needs of particular individuals. Thus, the new media open up domonetic vistas entirely missed by mass media.

At the domonetic elevation of newspapers, images are supplementary, not primary. The new technologies thus favor text over pure video because text — enhanced by graphics where needed — is by far the best (and digitally most efficient) way to convey most information and ideas. Where graphics are overwhelmingly more efficient than alphanumeric — as in visualization of huge bodies of data or statistics — the newspanel can supply true computer graphics and simulations. Interactivity, after all, is the computer's forte.

#### THE \$700 MILLION INCENTIVE

As early as 1981, Fidler saw and predicted that computer technology using flat-panel screens would allow the newspaper business to eliminate much of its centralized manufacturing and printing plant and much of its distribution expenses, and deliver the product directly to the customer at half the cost. He saw that this process would jeopardize neither the branded identity nor the editing functions nor the essential character of the paper. The distribution of intelligence would simply permit the customer rather than the newspaper to supply the display and the printer. This microcosmic shift would drastically simplify and improve the accessibility and worth of the information, enhancing the value of newspaper archives and other resources. This step could theoretically save Fidler's employer, Knight-Ridder, some \$700 million, or between half and two-thirds of its current costs.

Fidler's vision is just as promising for magazines. In effect, his concept allows newspapers to combine the best features of daily journalism with the best qualities of specialty magazines. The front pages and shallower levels of the system will still function like a streamlined newspaper, which read-

ers can browse, search and explore as they do a conventional paper without thrashing about through the pages. The deeper levels will function like magazines, focusing on business, technology, lifestyles, sports, religion or art. Indeed, to exalt their offerings into an ever richer cornucopia, news systems will want to collaborate with magazines, just as they often distribute magazines today with their Sunday papers.

#### THE SOUL OF THE NEW MEDIUM

In addition, electronic magazines can excel newspapers in providing a sense of community through interaction with other readers and authors in new kinds of dynamic letters, bulletin boards and classified sections. In a sense, the news panel never ends. Beyond its offering of news, articles and archives, it opens into new dimensions of interactivity.

As Stephen Case puts it: "Everybody will become information providers as well as consumers. The challenge is to create electronic communities that marry information and communications — thereby creating an interactive, participatory medium. This community aspect is crucial — it is the soul of the new medium."

The most practical current vessel for this expansion of the press is Case's own company, America Online, a supplier of an icon-based interface and gateway to scores of "infobases" and bulletin boards in Vienna, Va., outside the District of Columbia. Ten percent owned by the Tribune Co. of Chicago, eight percent controlled by Apple, allied with Knight-Ridder and providing access to such journals as the *New Republic*, *National Geographic*, *Time* and *Macworld*, America Online has uniquely focused on the vital center of the new market: the point of convergence of newspapers, magazines and computers in new communities of interest and interaction.

Following this strategy, America Online has invested just \$20 million (one-100th the capital of Prodigy) and devoted half the time, to achieve

nearly one-third the customer base and generate strong profits, in contrast to huge estimated losses on the part of IBM and Sears. Prodigy is now paying AOL the high tribute of imitation, making deals with Cox Enterprises Inc. and its 17 newspapers, and with Times-Mirror. Perhaps most audacious in pursuing this vision, however, is Murdoch's News Corp. Ltd., which recently purchased Delphi Internet Services Corp., the only on-line service with full Internet access to home PC users. Delphi already offers an array of news programs and special-interest conferences, including a popular computer news show led by moderator Jerry Pournelle that provides interactive dialogs on everything from abstruse computer features to science fiction. Pournelle and some 300 other conference moderators can function like editors in cyberspace.

Internet is the global agglomeration of data networks that has emerged from the original Pentagon research network called ARPANET. Growing at some 15 percent a month for several years to a current level of 10 to 20 million users, Internet has bifurcated into linked commercial and research nonprofit divisions. As John Evans, president of News Corp.'s Electronic Data, puts it, explaining the Delphi purchase: "Internet is like a giant jellyfish. You can't step on it. You can't go around it. You've got to go through it." Delphi now plans to go through it using much quicker access systems, including cable.

Evans declares that these new collaborations between News Corp. and Internet will "put the 'me' back into media." His concept, also shared by Nicholas Negroponte's Media Lab and Apple Computer's Knowledge Navigator, is an automated news database ultimately supplying the customer with a personal paper filtered from floods of daily information by an agent programmed to pursue your own interests. In Fidler's view, however, these digital papers will succeed only to the extent that they



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transcend this vision of the Daily Me. Fidler prefers the vision of a Daily Us, shaped by human editors rather than by electronic agents or filters. According to Fidler, the law of the microcosm will put so much intelligence and storage in the tablet that the individual can personalize the "paper" every day in a different way. If, as Case puts it, the soul of the new medium is community, the reader will want to begin in a particular context, a specially favored "place" in the world of information, a place with a brand name and identity: a newspaper.

#### THE COMPUTER IMPERATIVE

Above all, the key to the special advantage of newspapers in the new era is their great good fortune in being forced to focus on computers. It should be evident by now to everyone in the information business that the energy, the creativity, the drive, the gusto, the pulse, the catalyst of this industry is computers. The magic is in the microcosm of solid-state electronics (doubling the density of components on a chip every 18 months) and in the concentric circles of enterprise and invention that surge outward from this creative core: the some 5,000 software firms, the thousands of manufacturers of chips, peripherals, printed circuit boards and add-on cards; the double-digit annual expansion in the armies of computer scientists and software engineers; the ever growing millions of PC owners devoting their creative energies and passions to this intoxicating machine.

What the Model T was to the industrial era—the teenage training board, the tinkerer's love and laboratory,

the technological epitome—the PC is to the Information Age. Just as people who rode the wave of automobile technology—from tire makers to fast-food franchisers—prevailed in the industrial era, so the firms that prey on the passion and feed on the force of the computer community will predominate in the information era.

Why, then, are so many apparently ambitious and visionary executives shrinking from the central arena to play around on the fringes with TVs and game machines? Why are American computer executives standing silently aside while the so-called U.S. Grand Alliance for the Future of Advanced Television, so-called digital HDTV, adopts an interlaced screen technology that is fundamentally hostile to computers?

For images, the human eye cannot tell the difference between interlaced and progressively scanned displays. But interlace poses endless problems for text and multimedia. Apart from Zenith, the American leaders in the Grand Alliance are AT&T, General Instrument Corp., MIT, Sarnoff Laboratories and GE-NBC. All but MIT capitulated to pressure from foreign TV interests such as Sony, Thomson Corp. and Philips Electronics to betray the American computer and newspaper industries by adopting a display scheme unsuited for the multimedia and text programs central to the next computer revolution.

Without text and multimedia capabilities, high-resolution images can open virtually no markets not already served by current "digitally enhanced" improved-definition televi-

sion displays. Limiting the teleconferencing market, for example, is not the resolution of the screens but the bandwidth of the network. Without computer capabilities, digital TV is likely to be a large disappointment.

Claiming to set a standard that can survive deep into the next century, the Grand Alliance is focusing on short-term economies for manufacturing TVs tomorrow. These executives are all missing the point and the promise of the era in which they live. The Information Age is not chiefly about kicks and thrills, offering games for kids and so-called dildonics for "adults." Markets for educational programs and on-line information services are already growing much faster than game markets. In 1992 in the computer business, according to the Software Publishers Association, entertainment software revenues rose some 29 percent to a level of \$342 million. Educational software for the home rose some 47 percent to \$146 million. Meanwhile, sales of computers with modems are rising at about 1,000 percent a year, hugely faster than the sales of TVs. Online services like America Online and Prodigy have been growing almost 500 percent per year since 1988. According to current projections based on microprocessor CPU sales, some 50 million PCs may be sold over the next 12 months, and perhaps three-quarters of them will contain either on-board modems or networking systems.

The ultimate reason that the newspapers will prevail in the Information Age is that they are better than anyone else at collecting, editing, filtering and presenting real information, and they are allying with the computer juggernaut to do it. The newspapers are pursuing the fastest expanding current markets rather than rearview markets. They are targeting adults with real interests and ambitions that generate buying power rather than distracting children from more edifying pursuits. In the computer age, follow the microcosm and you will find the money, too. ☛



## The Seven Laws of Money



### The Seven Laws of Money

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*"Do the right thing and the money will follow." As a Point Board member, Michael Phillips wrote this gem in the early seventies. Long out of print, Shambhala has done a great service by publishing an updated shirt-pocket-sized version.*

*Money is a symptom, a measurement, a dream, or a nightmare. It's never a cause or the actual problem. Far too often, lack of imagination is excused as lack of money. Read or reread Phillips for refreshment and reminder. I try to keep it handy in my tool kit. —JS*

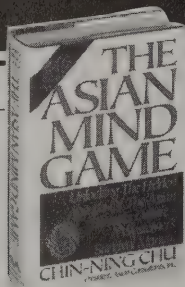
- The first Law is the hardest for most people to accept and is the source of the most distress.

The clearest translation of this in terms of personal advice is "go ahead and do what you want to do." Worry about your ability to do it and your competence to do it but certainly do not worry about the money.

### THE FIRST LAW · 19

when he's forty, and fifty. Aging works for you in right livelihood. It's like a good pipe or a fine violin; the more you use it the deeper its finish.

Another thing you can ask yourself about right livelihood is whether the good intrinsic in your livelihood is also good in terms of the greater community. This is a hard question to answer when you are asking it about yourself. It's hard to establish criteria, but a carpenter can certainly be doing good for the community in a very powerful sense. All of this is by way of saying that you shouldn't separate the idea of doing good from whatever your livelihood is; they can be integrated. With a right livelihood you would not be doing what you are doing and at the same time be saying "I'd rather be a nurse, I would rather be head of the Red Cross." The dichotomy would not be necessary. What you would be doing, in your eyes, would be as beneficial to the community as any other function.



## The Asian Mind Game

### The Asian Mind Game

Chin-Ning Chu. Rawson Associates, 1991; 271 pp.  
ISBN 0-89256-352-4

\$26 postpaid from Macmillan Publishing Co.,  
100 Front Street, Riverside, NJ 08075-7500; 800/257-5755

*If you are doing business with Asia, you need this book. Business in America tends to be contractual with terms spelled out on papers drawn up by lawyers. Business in Asia relies on human interaction, and the nuances of that interaction are critical to success. The book begins with fascinating background on Asian business culture followed by chapters on Japan, China, and Korea. —Mollie Rights*

- For months Mr. Jones had been courting a Japanese businessman who was planning a multimillion-dollar purchase of the agricultural commodities that he dealt in. For a variety of reasons, Mr. Jones felt he had the inside track on his only major competitor, a midwestern broker. He and the Japanese buyer developed a strong rapport, and the deal was all sewn up when the buyer asked him for a favor. He wished to have his son study in the United States for a year and wondered if the boy could come live with

## The Book of Stratagems

*I am often curious about important experiences and learnings I missed growing up in my family. This book offers ways of thinking and being that stand in stark contrast to ideas and aspirations I left home with. Each stratagem is illustrated by roughly a dozen pointed anecdotes drawn from Chinese military history. The quotation that ends the introduction probably best sums up the intent of the author: "Be wary as serpents, innocent as doves." —Mark Brady*

- Stratagem No. 17: Toss Out a Brick to Attract Jade

*Ode to a Fart*

"Flowering talent" — *Xiucui* — was the designation for a certain rank of scholar in imperial China. One such scholar had just died and made his appearance before Yama, the Prince of Hell. At that moment Yama broke wind mightily. And immediately the "flowering talent" improvised this "Ode to a Fart":

The golden-shimmering rump arches high, Releasing an expansive zone of savory aspiration. The sound is like that of strings and brass, The aroma that of musk and fragrant marjoram.

The Prince of Hell was greatly pleased, gave the "flowering talent" a gift of ten additional years of life, and sent him back to the world of mankind.

Here the "brick" is the totally worthless "ode," a piece of unbridled, bootlicking flattery. The "jade" that it brings in, of course, is the extra ten years of life granted by the Prince of Hell. A blatant case of "I give you a little, you give me a lot."

## The Book of Stratagems

(Tactics for Triumph and Survival)

Harro Von Senger.

Penguin Books, 1991;

397 pp. ISBN 0-14-016954-7

\$14 (\$16 postpaid) from

Penguin USA/Consumer Sales,

120 Woodbine Street,

Bergenfield, NJ 07621; 800/253-6476



Mr. Jones. Unfortunately, Mr. Jones said, his life was not arranged so that he could conveniently care for the boy and he was forced to decline. Soon thereafter, his Japanese client signed a contract with his midwestern competitor, who, not coincidentally, had some room in his house to put up the client's son. At last count, Mr. Jones's unwillingness to undertake the obligations of friendship as understood by his Asian friend had cost him \$10 million worth of business and the total is still climbing.



**Eudora**

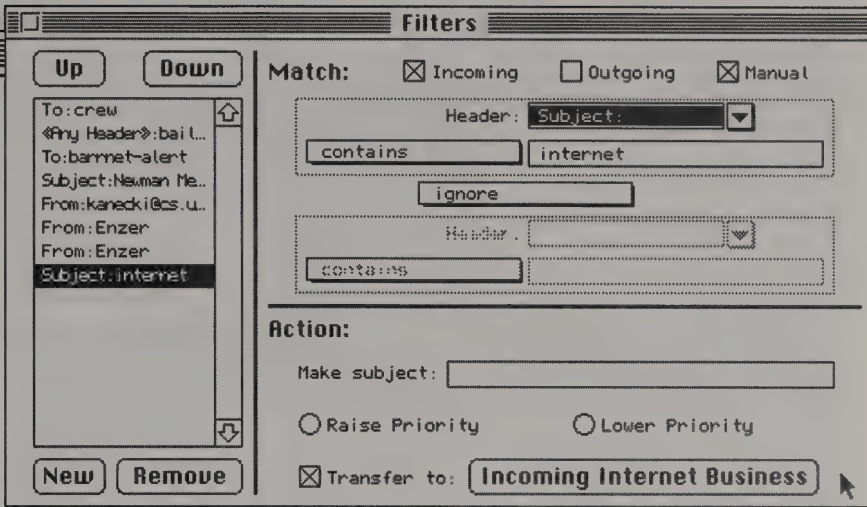
This program changed my life. Before I found Eudora, my email box was out of control. I had over three hundred messages stacked up waiting to be processed, and I could read and respond to them only when I was logged into my UNIX account. I was at the mercy of UNIX text editors and all was dark upon the face of my mailbox. Email was no longer my friend.

Then I started using Eudora, a fully graphical interface for Internet mail. I use it on a Mac Powerbook, but there is also a Windows version that is practically identical, right down to the dialog boxes. To use Eudora you need an email account on an Internet site that supports the "POP3" protocol. Almost all do; ask your system support folks if you are unsure.

Eudora automatically logs into your email account, pulls your email from your Internet account onto your computer, uploads all the mail you wrote since the last time, then logs off. All your email is now on your own computer, where you can read it, respond to it, delete it, store it in as many different mailboxes as you want, and so on.

When you're editing messages with Eudora, you get to Cut, Copy and Paste, using the keyboard or the mouse. Just the way God intended it.

If you get a lot of email from mailing lists, you will love Eudora's "filters": these let you do stuff like "Take any incoming message from the Persian Cat List and



This filter is one of the eight that I created for my own use. It takes all incoming messages with "internet" in the Subject: and files them in the "incoming Internet Business" folder.

stick it into this folder here" or "Any message from W. T. Bozo goes straight into the trash." Filters can make simple (boolean logical) decisions: "If it is from Persian Cat List OR if the subject contains 'Persian,' THEN put it in the Cat folder."

This makes participating in mailing lists a realistic option for people who have a life. Eudora can pre-sort your mailing list mail for you, and you can deal with it once a week or so.

The program also simplifies the creation of mailing lists — addresses that you create that send copies to multiple people: all your friends, or all your media contacts, etc.

Eudora also easily handles attaching files like spreadsheets and graphics,

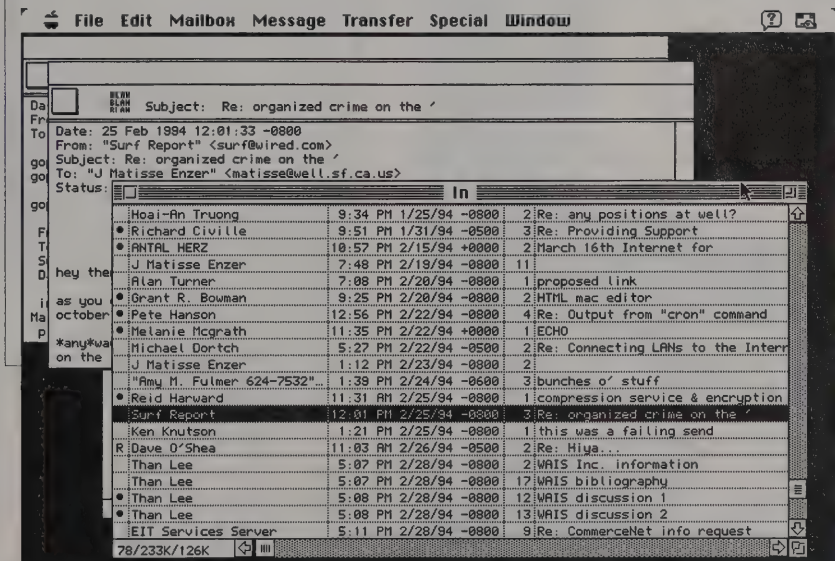
### Eudora 2.01

(Electronic Mail Software for TCP/IP Networks)  
 Macintosh (System 7 required) or Windows. \$65 for single user license, multi-user discounts available from Qualcomm Inc., 6455 Lusk Boulevard, San Diego, CA 92121; 800/2-Eudora, email: eudora-sales@qualcomm.com

automatically encoding them into text (required for Internet mail). It handles incoming attachments automatically (techy talk: Eudora is MIME compliant); this compares with the complex, manual decoding that recipients without Eudora must do.

Because Eudora is so easy to use I have started recommending it as a "get your toe in the Internet" tool for my consulting customers. I can set someone up with Eudora, teach them how to use it, put them on a couple of mailing lists if appropriate, and get them on their way to full Internet involvement, all in a couple of hours. For a small business or nonprofit, having Eudora and an associated Internet email address can mean instant worldwide visibility, without having to learn a whole passel of UNIX commands. —Matisse Enzer

Matisse Enzer (matisse@well.sf.ca.us) is former manager of Customer Support at The WELL, and is now in business helping people use the Internet and related technologies to further their own agendas. He has spent much of the last six years in cyberspace. Welcome home, Matisse! —JS



This shows the bottom of my "Inbox," which has 28 messages totaling 126K (233K before the trash is emptied).



## Levengers

I know, I know — Stewart reviewed these folks only last summer. But, I'm an unabashed fan. Here's more detail about things we are using at Whole Earth. Get the catalog. —JS



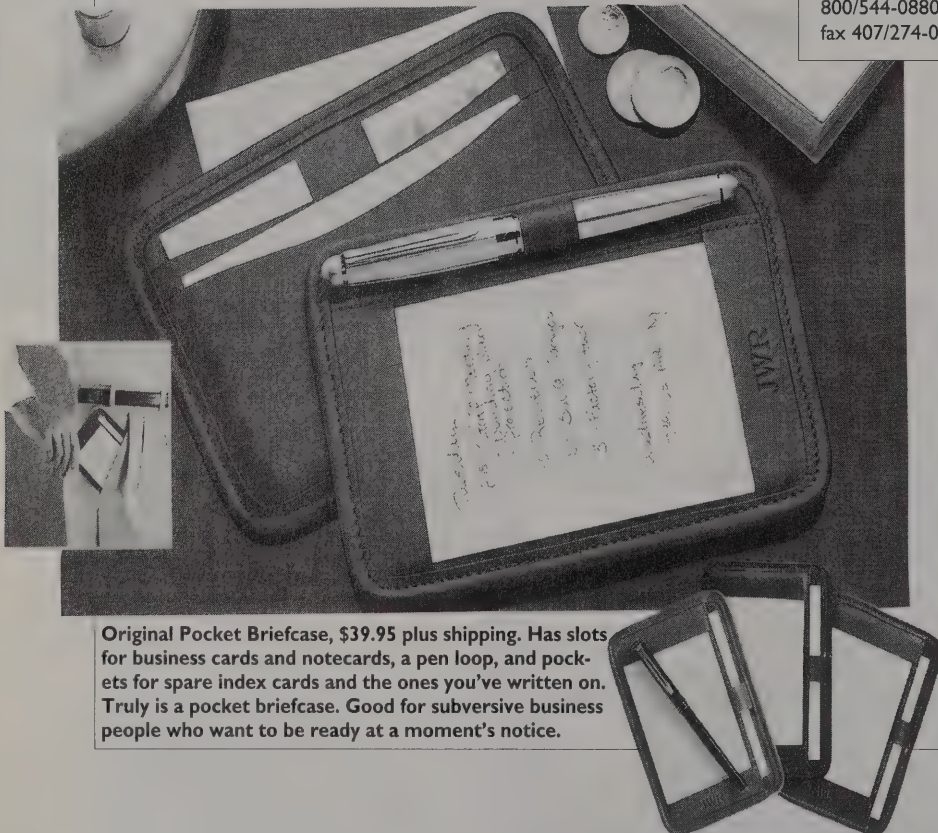
**Desk Card Box, \$29.95 plus shipping.** If you integrate the pocket briefcase into your routine, you'll want one of these. Simple construction for easy access to files.



**Reader's Coffee Table, \$499 plus shipping.**

### Levengers

Catalog free. 975  
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Delray Beach, FL  
33445; phone  
800/544-0880,  
fax 407/274-0263



**Original Pocket Briefcase, \$39.95 plus shipping.** Has slots for business cards and notecards, a pen loop, and pockets for spare index cards and the ones you've written on. Truly is a pocket briefcase. Good for subversive business people who want to be ready at a moment's notice.

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Jerome L. Herman

Writer

From the Pocket of  
Todd C. Pitner

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**Personalized Window Cards, \$59.95/1000.** Combines the functions of business card and notecard. Very handy for that quick personal note or for note taking.



# Twenty-Five Ways to Spot an Expert

BY WILLIAM D. RIFKIN

What does it take to be regarded as a voice of authority? Here are twenty-five tips to gain expert status — to be recognized as an "expert."

Do the following:

Establish a separate status.

Don a costume and use paraphernalia.

State your professional rank and domain of authority.

Establish a private space in which to work.

Talk in a formal or oratorical way.

Designate an audience to listen to you.

Display skill with technical language.

Appear to be objective but empathetic.

During the meeting/consultation

Convene the interested parties.

Ritualize the consultation.

Make the proceedings solemn.

Synchronize participants with gestures and movement.

Adhere to traditions to assure legitimacy.

Gain the center of attention.

Force the client to compete for your attention.

Make deference toward you seem natural.

What You Say

Explain things.

Devise explanations that resist refuting.

Turn contradictions into confirmations.

Introduce new topics more often than anyone else.

Tell "war stories" to bolster your opinion and your status.

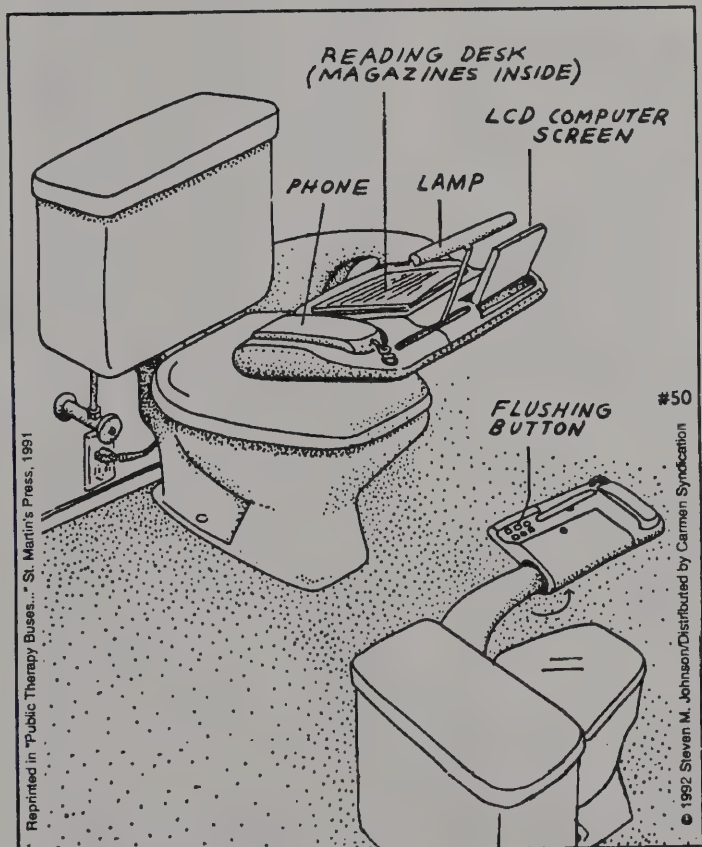
Assure your client that science works.

Narrow alternatives.

Help decision making.

Recognize that your client's decision can depend on forces beyond your control. ♣

## SIGHTINGS / Steven M. Johnson



Intelli-toilets, on display in upscale bathroom design showrooms in most states, are a big hit, especially with habitual bathroom "readers."



AATSHDEKPIBFBQLANEGRHALCBCNNI  
JKEAIWNIULPQROYCANPMEOWLEHSYIP  
TTWHORPJYHTLRLSMSIKSDIOFKDFJBB  
QGAUYOUILOKUFHSRUSOCEFJGLVBFJ  
ESDEDHLYF-ELNMCNRYYPHTJIODON

BY BRUCE DUNNINGTON

*Bruce Dunnington appeared on our deck one sunny day, ranting about crypto and privacy. "All well and good," said I, "but give me a one-pager that persuades me that the problem is real and that I can do something about it without having to be a brain surgeon." He did. He's from somewhere in Pennsylvania. —JS*

Protecting the privacy of your computer files is now as easy as inserting a floppy disk and nearly as necessary as breathing. Encryption of computer files has been practical for a decade for computer gurus, but for others secure encryption has been only a dream. New developments have removed the difficulties for ordinary computer users, and none too soon.

Computer vandals continue to harass, accompanied by data thieves, grand and petty. Their capabilities are expanding in a frightening crescendo, and range from the random slash-and-burn tactics of viruses to sophisticated data theft you may never be aware of, but that damages you professionally and financially. If you follow the trend of your peers, soon your personal schedule, your next presentation, your correspondence, your private notes, and your bank records will be on your computer. And your computer may well be a laptop that you carry with you and leave in relatively insecure places like hotel rooms. Think for a moment what could be done with those records by a malicious data thief, consider that passwords provide little protection, and you quickly develop an interest in encryption.

In the near future smart disks with built-in encryption will be almost universally used for computer access. This technology will soon be available from all major computer companies. Among the first on the market was the SmartDisk Security Corporation's encryption tool, which looks like an ordinary 3 1/2" floppy disk but which contains a battery-powered computer with a built-in encryption program. With this encryption disk you get an installation disk. Just slide it into your computer, follow the simple instructions that appear on the screen, and enter a password. A unique encryption key is generated. It is an absurdly long string of digits, but you don't see it. Remove the installation disk and insert the encryption

disk. In a few minutes your files are encrypted and the key is stored on both disks.

Remove the disk and use your computer normally. When you shut down, you extinguish the encryption key. Each time you boot your computer, insert the encryption disk and enter your password. If you forget your password, or lose your disk, use the installation disk to remove the encryption so you can access your files. Guard the installation disk well!

With software-based methods where the decryption key resides on the computer, it is possible to bypass the encryption. This can be done by a determined hacker, who inserts a disk like the boot-disk used to install your operating system. Not so with this method. More than ten years of vigorous testing by the top cryptographic experts in the US and abroad has proven this encryption technology to be secure.

The U.S. government classifies encryption tools as munitions and forbids the export of full-strength programs that could aid the enemy, whoever that is these days. But you are permitted to carry your personal encryption device with you when you travel abroad.

The powerful and secret National Security Agency has said and done a lot on this subject. Without any legal mandate they have waged a decades-long war to cripple civilian cryptography. They've done this through the manipulation of government standards, the use of export controls to discourage domestic use, and the awesome power of government purchases. They are still at it.

The government recently issued an encryption standard through the National Institute of Standards and Technology (NIST) that requires that a copy of your private key be kept by government agencies. One implementation is the infamous Clipper chip to be at the heart of telephone encryption products, if the

government can force it. The statement from the White House announcing the standard said that use was voluntary, and that the administration did not intend to change that policy. Skeptics would add *at this time*.

Before your telephone can be legally tapped, a warrant is required. But the NSA or the FBI will not need a warrant to get your private key for the government-issue encryption standard, and there are no criminal penalties for improper use of your secret key by the authorities.

The government assures us that their encryption proposal is voluntary, but they apparently plan to make it so ubiquitous that you would have to use it, frequently unwittingly. Proponents state that public use of the "voluntary method" is necessary so the authorities can read the files of the criminals. In an insult to the intelligence of the public, the NSA and the FBI act as though terrorists, criminals and drug dealers will choose to use the government encryption method that they know can be broken at will by the government. Clearly there are plans as yet unannounced that will force all of us into this trap that strips us of our privacy.

Businesses cannot survive without information protection. And citizens cannot live comfortable lives without privacy. If you insist that your encryption products be based on technology that allows you to retain control of your private key, you will not only preserve the privacy of your computer files. You will also support the computer professionals trying to protect your personal liberty and privacy in the new world of information. ♣

For information on SmartDisk Security Corporation's Safeboot PC Security System, contact SDSC, 4073 Mercantile Avenue, Naples, FL 33942; phone 813/263-3475, fax 813/643-6357. Price is \$160 (\$166 postpaid).



Here, with minimal obligatory techy jargon, is some of the most sound job-hunting advice I know of.

Alex Funk is a registered silicon industry rabble-rouser. —JS

# THERE IS NO SUCH THING AS A STUPID SUGGESTION

— if it is too stupid for a developer to have thought of! Corporate bean-counters routinely kill ideas presented in demos by designers. Never assume that a designer will reject your idea for improving a product as too insignificant. But what makes presenting your ideas productive?

- **Get in touch with your feelings.** *Anger:* "I know that! Why doesn't the computer know that?" *Boredom:* wanting to send out for bagels while the computer munches on something. *Dread:* having to use that particular program. *Glee:* sudden flashes of insight about how something works. *Frustration:* "Why won't it let me do that?" *Hatred:* someone in the machine seems to dislike you. *Paranoia:* is the program so well protected against duplication that it cannot function seamlessly? *Shame:* you feel incompetent, when it's really the product that's incompetent.

These emotions can result from poor design.

*Or love:* wanting to carry the designer's picture in your wallet.

- **Log your responses.** As you use a tool, keep a log of characteristics you like and of those you find tedious. These will change over time, so your first impressions are very important. A product with a long learning curve may be counter-intuitive. Once you devise a workaround, you'll become desensitized to the product's inconvenience.

It's important to keep logging your work patterns when you've gotten used to the software, too. A well-designed tool doesn't require you to jump through a lot of hoops.

- **Sweat the small stuff.** Designers honing the cutting edge rarely do this. But it's the road to interactivity: ease of use of any tool requires that the tool's best effort must go into interpreting the user's simplest gestures. Unless a user rubs the designer's nose in them, mundane considerations of file storage and user interface aspects may be ill attended.

- **Harken to the paradigm.** Many users say that using a mouse demands a distracting degree of hand-eye coordination. They resent the "desktop" metaphor as a crude and rigid electronic approximation of its namesake. Computers still force us to be *artistes*, rather than allowing us to be empowered recumbent clods by doing the artistry, or even the craft, for us. We can now draw straight lines, but must do multiple zooms to check if they meet cleanly.

Ask questions about how closely a product models how you worked before using it. What's missing? At any time that (for instance) the text insertion cursor is not active, is the whole keyboard available for control? Do you have to do some fancy mouse-manipulation to select objects — or do they self-select whenever the cursor is on them? Are controls obvious? Is navigation smooth, with your work object always front and center regardless of zoom level, or do you continually have to finagle windows on the screen?

Is the program hampered by too slavishly replicating the way you used to work? In the real world, we need to grasp a tool before we apply it. The idea of moving the cursor up to a cute little toolbox to grab a text or drawing tool is clearly *passé*, however. A program should intuit the tool required from context.

- **Throw a free lunch.** A product improvement is "free" if it uses existing techniques or trivial modifications to get large productivity gains. Developers prefer adding routines (like trapping keystrokes) rather than doing overhauls. So note small stuff first in your log, and resist earthshaking changes until you get to know the designer.

- **Write, don't call.** Communicate your log to the designer from an informed basis: "The manual has no instructions for X" or "Y is not in the index," rather than "How do I work this thing?". That someone wants to X with the tool may surprise the developer, and a good one will at least send a card with her thanks. If your opinion is valued, you may get an email address or be asked to beta-test, and then you'll have real input into the product's evolution. Designers are busy; don't expect hugs — but don't be surprised if the next version carries your features.

- **Discriminate.** Good vendors provide clear price and version upgrade paths, support industry standards so that users are not single-sourced, and network advanced users and designers. Small and large accounts are treated with equal courtesy.

Shareware is frequently excellent. Honor your end of the deal by sending money for programs you use. Expect in return a commitment to excellence, which should exist whatever the vendor company's size.

- **Leave the diapers behind.** Commodity-market margins preclude hand-holding, so modern computer products, like cars, must be self-explanatory. Vendors must not be asked to babysit you. Nor should they make you feel you need to be babysat. If you really feel that your provider is blocking access to either the designer or an informed intermediary, get revenge. First, stop buying their product. For more impact, prevent the provider from patenting the improvements you feel are an advance in the art. Do this by writing a rant describing your idea to a publication in the field. Good editors see rants as "hand-waving," so a rant is better submitted as a letter than an article. A review of the balky tool is an excellent platform for a rant, which, even when printed in a small-circulation publication, public-domain your improvement idea. It is then unpatentable! ☺









# My Life in the Golden Age of Epistemology

Commencement Address Delivered by Sunshine Baroni, E.D. before the Waldorf School of the Biminis

BY ELIOT FINTUSHEL

*I lobbied for licensing laws. I figured, if Nixon could legitimize dominoes and Reagan could sell trickledown, I've at least got a shot with La Nausée (A Disorder of the Apperceptive Faculty).*

*"Oh Money,  
Pad My Home!"*

—Motto of the American  
Confederation of Epistemologists

HIS IS WHAT WE HAD: Soul. Artistic sensibility. Spiritual insight.

This is what they had: Money.

While we ex-Flower Children played musical saucepans under the leaks in our starter homes, the yuppies cut coke in their Bahamian condos. We had opted for the higher things. They had chosen the mundane. But our kids, just like theirs, yammered for rollerblades, college educations and motorized miniature Porsches.

We had to come to an accommodation. It's a simple equation: soul for dollars. We knew that somewhere along the line, the fat cats would start to feel the itch of what *they* were missing. They'd start clipping the "WISDOM OF THE ANCIENTS" ads from the back pages of *Fortune* and *Money*. They'd haunt art galleries and endow grant-giving foundations for geniuses of this sort or that. Maybelle did a reading and assured us that the time was near.

I'm the one who did the actual footwork. I fronted small bucks for a post office box and a phone listing. A guy at Kinko's helped me design the letterhead for the A.C.E. (American Confederation of Epistemologists). I donated twenty-five to the Policemen's Ball and registered with a few strategic Chambers of Commerce — Mill Valley, Martha's Vineyard, Scarsdale, East Lansing, low-profile venues with high real estate values.

*It's a better world for  
Eliot Fintushel's presence.  
If in fact he is present.  
—James Donnelly*



I lobbied for licensing laws. I figured, if Nixon could legitimize dominoes and Reagan could sell trickledown, I've at least got a shot with *La Nausée* (A Disorder of the Apperceptive Faculty). Turns out, I was right, and in a big way. California — no surprise — was the first state to establish a board of Epistemological Examiners, but Massachusetts and Guam were close behind.

My first move, personnel-wise, was to locate B.A.s in Philosophy or the Arts. I found them everywhere — washing dishes, driving diaper trucks, doing Performance Art in church coffee houses, pushing grocery carts full of deposit bottles, you name it. Anywhere there's no money. All of them had bills, kids, and gray hair. Signing them on was no problem.

We ran our first ad in the *Wall Street Journal*:

WHO ARE YOU?  
WHAT DO YOU KNOW?  
HOW DO YOU KNOW  
WHAT YOU KNOW?

*La Nausée* (A Disorder of the Apperceptive Faculty) strikes one out of four yuppies!

The A.C.E. recommends that businesspersons above the age of 33 see their family Epistemologists twice yearly for a Routine Checkup and Sensorial Cleaning.

(CALL 1-800-WHO-ISIT FOR REGIONAL REFERRALS!)

I wanted to make it one in three yuppies, but Maybelle cautioned me not to be greedy. Four, she said, was a numerologically appealing figure.

This ad appeared just about the time that the midlife crisis thing was getting big and Japanese

corporations were threatening American money. We got so many responses we had to hire on a dozen secretaries to deal with them. Actually, it would have taken only three or four, but we insisted on postgrad work in an artistic discipline or philosophy.

TODAY, WHEN PEOPLE walk into an epistemologist's office with all the glittering mind lenses, the chrome-plated mobile epistemometers and sterile trays of personality components, they often fail to realize that a mere ten years ago, epistemology was an armchair science. It had no more basis in fact than handicapping college football or guessing celebrity sun signs.

Today, nobody in six figures lifts a brow without an epistemological scan. After all, it might not be *your* brow. And how do you know you're lifting it and not knitting it or furrowing it or, if they actually turn out to be lips, for example, pursing or puckering or blowing a kiss. Everybody asks themselves things like that nowadays. But honestly, it wasn't always so.

My first patient, for example, was a mid-level executive from a well-known optical processing concern. "I don't know who I am," is what he told my receptionist, a Comparative Religions major from Oberlin. She gave him the usual form to fill out, which requires new patients to record, in their own hand, the date, their annual income in both letters and numerals, and their name — in cursive. Basically, it's to make sure that, in spite of any cognitive ambiguities, they can still write a cashable check.

I saw this ad in the *Wall Street Journal* . . ."

"Are you sure it was you who saw it?"

Maybelle ushered Hannibal Lewis II, into a small waiting room and invited him to exchange his three-piece charcoal gray for a white hospital gown, split down the back. This immediately establishes the proper doctor-patient status relationship.

"Doctor Baroni will see you shortly." Then she flipped two flags above the door outside — a red one (annual income in the high six figures, with stock options) and a blue one (Air sign with impending Saturn return — candy from a baby).

After a suitably intimidating pause I sauntered in grimacing at my clipboard — I had been unable to soak off the bar code sticker, and I was squinting to see if there was a message hidden in the pattern, as Maybelle had told us at the last A.C.E. kaffeeklatch. "Well, what *seems* to be the problem, Mr. . . . uh . . . Lupis, was it?"



"Uh, Lewis, yes. I saw this ad in the *Wall Street Journal* . . ."

"Are you sure it was *you* who saw it?"

"I remember seeing it."

"Yes, but is the one who remembers the same as the one who saw?"

"My God! It isn't . . . *la nausée?*"

But it's treatable, of course. The initial visit runs them seven seventy-five to twelve hundred or so, depending on the patient's Line 32 gross income and whether they ask me any questions (at \$79.99 a pop). Tests and procedures are extra, of course. What with the cost of acrylics, gold leaf and reprographics for the flash cards and slides, the Eidetic Variation Inventory™ alone can run into fairly big bucks.

But that's just pin money for a decent epistemologist. Identity Shift is where the serious revenue pours in.

We start in the street outside the office. Those indigents you see in our professional plazas, building bonfires near the dumpster, are all pro actors earning Equity scale. Nobody with a briefcase or sensible heels can get past them. Their mission? (Listen up now. This is subtle.) To act *as if the yuppies aren't there*; to shoulder right past them to gotanickel *someone else*.

Timing is everything. Using Maybelle's mood ring method, along with an amber pendulum she received from a theosophical mail-order house, we have metered veritable Grand Canyons and Matterhorns of adrenaline. When the suits first spot our episto-shills, their levels spike. Then, when the bum squad gives *them* the bum's rush, their encephalograms, believe you me, are strictly static and tide foam. You should see the jaws drop.

Then comes the sign-in. Typical exchange:

"Miss . . . ? Miss . . . ? Miss . . . ?  
Miss . . . ?"

"Oh, sorry. Have you been standing there long?"

"Yes, I . . . Miss . . . ? Miss . . . ?  
Miss . . . ?"

"May I help you?"

"I'm Hannibal Lewis II. I have a two o'clock with Dr. Baroni."

"Were you speaking just now?"

"Yes, I have a two o'clock . . ."

"I don't see it in my book, Mr. Bloom."

"Lewis. I confirmed it yester . . .  
Miss . . . ? Miss . . . ?"

"Yes? Is there something I can do for you?"

"I just told you. I've come to see an epistemologist."

"No need to be snooty. For whom is the appointment?"

"Why, for *me*, Hannibal Bloo, I mean, Lewis II."

"Will he be coming into the office today?"

"I'm already . . . Miss . . . ?  
Miss . . . ?"

The point, of course, is to undermine the patient's sense of his or her own solidity as an individual entity, or both. Honestly, it's very therapeutic. Read the Diamond Sutra — nobody really exists anyway, see what I mean? (That's my defense when my karma ripens and they sue. Anyway, we're insured against malpractice actions, and many of the strategic judges are patients.)

You can see — assuming it's really *you*, ha ha! — that by the time Maybelle checks the afflicted into their little rooms and flips those colored flags, the groundwork has been carefully laid, or *laid bare* would be a better phrase. I often find them studying their driver's-license photo to see if it's definitely

Pinter pause.

"Why, I *think* so."

"Mmmm! Put this on." I pulled the now-familiar Noematic Mask [REGISTERED TRADEMARK] from its rotary canister over the magazine rack (*The Monist*; *Proceedings of the Aristotelian Society*; *The Journal of Metaphysics and Ontology*; *Money*).

He pressed his face into the ring of nose putty along the rim of the Noematic Mask™, an *objet* I had designed with three Conceptual Artists from Berkeley, using World War II surplus items. "I see a dark surface," he said — I think, although it was hard to tell with that thing over his puss. "There are fluid colors, iridescent blue and red. And they smell like garlic." That was the rotini I'd had for lunch; I had used the thing to cover my eyes for my aftermeal siesta.

"Yes, very good! Now, *who's* seeing it?"

"why, I am, Doctor Baroni . . .  
*aren't I?*"

"Mr. Loomis — or whomever I am addressing right now — I don't want to alarm you at this early juncture — Further tests are indicated — but I believe you are suffering from an Acute Noetic Dysfunction [PATENT PENDING]."



them; given human vanity and the current state of ID photography, this generally works to my advantage.

After the Noematic Mask™ shakedown, they're ready for the sockdolager: "Mr. Lukash — or whoever you are — before we go any further, I have a rather important question. How do you earn your living?" I generally try to say this while facing a little to the patient's left, and when they squirm into view, I switch to the right to wait for the answer.

"I coordinate team-building and multilevel planning at Kodox, Incorporated," for example.

"Are you sure that's *you* you're talking about?"

"Huh?"

On this cue, as predictable as a virgin's blush, Maybelle knocks. I let her in, and she hands me a large manila envelope. She frowns at me, flashes a concerned look at a spot just to the patient's right, shakes her head gravely, and leaves us.

"Look here, Mr. *Mumblefzz*, this is a hypostatic scan of your sensorium." I unsheath the collage my staff of Fine Arts Master's Candidates has prepared for just this maneuver. It's about the size of a complete spinal x-ray, and it comprises singed ephemera clippings, Library of Congress call numbers, FBI line drawings of at-large multiple felons, and bar graphs of pork butt futures from the *Wall Street Journal*. "Do you see yourself at Kodox anywhere on this stat?"

"Why, I can't say that I do."

"Now this is *my* hypostat . . ." — Unfolding a similar sheet from my stethoscope pocket — "look here . . ." — Mars transit-

ing three counterfeiters, *The Autobiography of Benvenuto Cellini*, and a run on strategic metals — "See that set of impressions in the upper left corner, the apperceptive psychonooses next to the *alaya vijñana* limen? See the Kodox sign over the door? The oval conference tables? The mission statements, the Ropes Sessions and executive retreats? Mr. Bluet, that's my job you described. I'm the one who's the Kodox executive. You, sir, have an Epistemological Displacement with severe Identity Shift. And you've been collecting my paycheck."

"Oh my God, can you help me?"

They don't always immediately sign all their paychecks over. The bank accounts and securities can take as long as six weeks. But they generally come round.

Let's face it. Most people nowadays don't have a clue as to who they really are, and major portions of their lives are blindspotlit and darkling. Folks with dough will swallow anything; I mean anything they haven't already swallowed. Look at Scientology. Look at Zen. Look at est, *In Pursuit of Excellence*, the Catholic Church, for heaven's sake. We epistemologists are just making a little pocket change compared to them. We aren't even tax exempt yet. And our smoke and mirrors is Toys-R-Us next to the F.A.O. Schwartz of the major religions, for example.

I say: It's about time we soulful dudes, the artists and thinkers and spiritual mavens, got our piece of the pie. *Bon appetit*, my fellow epistemologists and future epistemologists! And thank God for the unexamined life. As Maybelle says, it foots the bills for us examined ones.

## Gone to Croatan

The conventional history of America's colonial days is deceptively clear-cut. There were the settlers and there were the Indians, making for a clear division along cultural and racial lines. What gets left out of the official version of events are those messy but fascinating in-between folks who are the subject of this book: the escaped slaves, the colonists who went native, the "tri-racials," and the dissenters from Church and State who dared to live free in the wilderness. If you thought that the DAR's ancestors typified early Americans, wait until you encounter the Maroons, the Tribe of Ishmael, the Métis, the Ramapoughs, the odd outcroppings of Islamic names in central Illinois, and numerous other insurrections against the steamroller of history. The essays and poems in this singular volume bring forth an alternate history that springs from the book and seizes the imagination. Be forewarned. —Jay Kinney

• What happened to the colony of Roanoke? Pessimists jumped to the conclusion that hostile Indians had wiped it

## Letters at 3AM

Michael Ventura chronicles the troubles of the "age of endarkenment." (A version of the essay by this name appeared in WER #65, Winter '89). His essays force his readers to look at our culture's insanity and to feel their own alienation from this culture, their family, their work, themselves. Ventura's writing is political, demanding a livable life, but he senses that our problems come from the deep places of the human psyche — as do their solutions. Beneath the apparent chaos of the millennium's end, he finds spiritual needs and answers. —Wade Fox

• It was easy, or so it seems now, to love the world as it used to be, the world of rigid boundaries. That world was a world, it held still long enough to be a world, and gave us time to learn to love it. But loving this scary state of flux? We want to love it, we have love in us to give it, but we are frightened and do not know how.

• What we now know, whether or not we ever wanted to know it, is that the human psyche is one of the great forces of Nature. And what is most frightening about our new technology is that it exposes us to this





The rescue mission found no evidence of a massacre — no bones, no burned houses. It found the colony's cannon carefully buried. And it found a note carved into a tree: "Gone to Croatan" (sometimes spelled "Croatoan"). The rescuers knew that the Croatans were a tribe of friendly Indians who lived on another island down the coast, but for various reasons they failed to follow up this clue. Years went by again before a ship reached Croatan — and found it deserted. And so the mysterious legend of the Lost Colony was launched.

The "mystery," however was an illusion. The fate of the colonists is easy to trace. Clearly fed up with slaving for a bunch of absentee London gentlemen, the lower classes of Roanoke had simply dropped out and gone native. They moved to Croatan and joined the tribe, then moved again to the mainland near the Great Dismal Swamp,

out, and this explanation later found its way into American history books. It suits the image of the Wild Man as racial enemy, treacherous and violent and deserving of genocide, on which our official U.S. myths is founded. Yet it does not fit the facts of the case.



### Gone to Croatan

(Origins of American Dropout Culture)  
Ron Sakolsky & James Koehnline, Editors.  
1993; 382 pp. ISBN 0-936756-92-6  
\$12 (\$14 postpaid) from Autonomedia, PO  
Box 568, Williamsburgh Station, Brooklyn,  
NY 11211-0568; 718/387-6471

where they avoided discovery for a long time (despite elusive rumors of "grey-eyed Indians"). Later they absorbed the runaway slaves into their population, and survived as a "tri-racial isolate community" for centuries. In fact the Croatans are still there, still have the family names of Roanoke colonists, and still know exactly who they are. The hideously embarrassing fact is that North America's very first colonists had decided to become *Wild Men*.

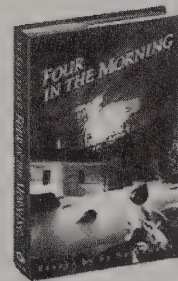
### Four in the Morning

*This collection of essays takes its readers on a trip through the darker recesses of Sy Safransky's mind. The editor of The Sun writes about failed marriages, tensions with his current wife, attempts to erase his past and, above all, his enduring sadness. Safransky's melancholy (the therapists would call it depression) is the basis of his writing. He seems to revel in the dark feelings that well up from his mind. These aren't happy essays, yet they are inspirational; reading them left me with the feeling that personal suffering and struggle yield great benefits. Life is a great tease: it's far too horrible to endure, while offering delights that no one can refuse. Safransky's writing is rich with this realization. One last note: these essays are best read piecemeal, with time for reflection between readings.*

—Eric Anderson-Zych

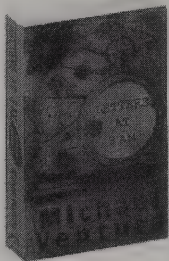
Years ago, I imagined my preference for a simpler life — heating with wood, washing the dishes by hand, growing a few vegetables without sprays or chemical fertilizer — made my life more authentic, set me apart from a culture enamored of progress. It was a conceit that had less to do with the advantages of wood heat or organic

gardening than with the need to be a little different, a little better. How tempting it was to romanticize my wholesome values, my fashionably old-fashioned style — but this was to confuse the look of a life with looking deeply into life. How ironic that I saw such posturing as evidence my life was more authentic — but I always find a story more convincing when the hero is me. Less heroic, though perhaps more authentic, were the deeply troubled and destructive aspects of my own nature.



### Four in the Morning

Sy Safransky. 1993; 168 pp.  
ISBN 1-883235-13-8  
\$15.95 postpaid from the Sun Publishing  
Company, 107 N. Roberson Street,  
Chapel Hill, NC 27516; 919/942-5282



### Letters At 3 AM

Michael Ventura. Spring Publications, 1993;  
247 pp. ISBN 0-88214-361-1  
\$16.50 (\$19.50 postpaid) from Continuum  
Publishing Co. c/o Publisher Resources,  
PO Box 7001, La Vergne, TN 37086;  
800/937-5557, fax 800/937-5557

force within us as nothing else ever has. We are standing in the storm of our own being. So we must face the fact that this, too, is our natural habitat.

• Kissing the bread, Antonio was kissing the earth. Kissing the bread, he was kissing the truth that human effort is precious and never to be wasted or debased; and that human need, the need for bread or anything, the need we are all so terrified of — is precious, too, and worthy of respect.





**Y**our proposal appears to suggest that it ought to be possible to create a way of measuring or assessing musical compositions in terms of their complexity, and that you expect this internal complexity to be related, in some way or another, to the compositions' "musicalness" — the degree to which we think it's good or interesting music.

This seems like a project that might not succeed in quite the terms you're suggesting, because the interesting complexity is not so much in the music as in the listener. By that I mean that music is actually a contingent combination of sounds whose emotional resonances are entirely dependent on the audience's personal and shared histories as listeners. By "contingent" I mean that it could have been otherwise. Music didn't have to consist of the elements and structures that it happens to consist of — and indeed it consists of quite other ones in other cultures, as anyone attending a concert of classical Thai music will soon realize. (I once attended such a concert in Bangkok that was totally mystifying. I could see that the audience was utterly enraptured, swooning at moments of apparently overwhelming emotional beauty that made no impression on me whatsoever; not only that, I couldn't distinguish them from any other moments in the piece. You might say that there was too much complexity in the music for me to be able to deal with it, but I'd rather say that there was not enough relevant complexity in my mind to experience it. I had no cultural background against which to set this particular adventure.)

So complexity, I'm saying, has to be present, but present in the whole system — music and listener — as a system. If it's just in the music (whatever complexity would mean in a purely objective sense like that) it makes no difference to anyone. The reason we can be moved by a single voice singing a simple song is clearly not because it has internal complexity, but because we do: we don't just hear sounds, but hosts of associations and historical, social and cultural undertones. A single voice is powerful to us because it is different in particular ways from most of our other musical experiences, and because this particular voice is different in particular ways from other voices we've heard. Aesthetically, what we respond to are differences, not "absolutes." That is why it is possible for a group of Lebanese to become ecstatic about the way Fairuz turns a phrase, while a non-afficionado of Arabic music will fail to get the point at all. What those Arab listeners

are responding to is how she does it differently. So when they hear it, they hear it against an enormous repertoire of other possible ways of doing it, of other possible emotional resonances and associations.

## RESONANT COMPLEXITY

BY BRIAN

Stewart scrawled "publishable as essay" across the top of this. It's Brian Eno's response to a proposal; a rough sketch of a new theory of music. It was addressed to Eric Iverson and Mark Davis at the Computing Research Lab in New Mexico.

—JS

This is a very important cultural issue, since it sets up a major division between two different ways of looking at cultural objects. In the traditional classical view, art-objects are containers of some kind of aesthetic value. In this view, the value was put into them by the artist (who got it from God) and it now radiates back out to those who behold it. It was thus that missionaries played gramophone records of Bach to Africans with the expectation that it would civilize them; they would somehow be enriched by the flood of goodness washing over them. We now see the arrogance of this assumption, but I think few people understand what is really wrong-headed about it aside from its political incorrectness: culture objects have no notable identity outside of that which we confer upon them. Their "value" is entirely a product of the interaction that we have with them. Duchamp's urinal was proof of this. Things become artworks not because they "contain" value, but because we are prepared to see them as artworks, to allow ourselves to have art-experiences before them, to frame them in contexts that confer value on them.

If I believe this, why, you might wonder, am I interested in A-Life based composition systems? Well, I think the idea is still full of possibilities, but only if we start out the right way and without misleading assumptions.

My background as a musician/composer comes equally from avant-garde systems music and popular music, and I've spent a lot of time inventing "machines" for making music.

In this diagram, several graphic elements are allowed to cycle freely. Imagine that these represent musical events — single notes, chords, sounds. Each has its own independent cycle length, so new configurations of sonic elements are continually being formed. The more complex the numerical relationships between different cycles, the longer it will take for particular configurations to repeat.



I made a series of records that had an unusual organizing principle: *Discreet Music* (1975), *Music for Airports* (1978), some of *On Land* (1981), *Thursday Afternoon* (1984), *Neroli* (1993). In these works I assembled a group of musical elements — these could be single notes or atmospheric sheets of sound or short phrases — and then set in motion a process whereby each element recurred in its own regular cycle. The important thing was that all the cycles were of complexly different lengths: they were not locked to each other. The result of this was a continuous permutation of the various elements as they fell together in different clusters. I find this absolutely delightful and sit back grinning like a Cheshire cat as I listen to it unfold.

I occasionally set up live versions of these systems, using four or five tape players that each carried long loops of sound material and which are then allowed to run out of sync. These loops are typically between fifteen and forty minutes in length. In this way it is possible to say that some of the pieces of music I make have a theoretical duration of several years (the length of time it would take before all the players were back in sync with each other). This is appealing: I like the idea of a piece of music that continues making itself whether I am there or not, and which has a life cycle that no one listener could ever fully experience.

Of course, the most important organizing principle in such works is not the machinery that I set up, but my brain (as the specifier of the original elements) and the brain of the listener. The listener's brain is what makes this experience into music. The pieces rely a great deal on the observable fact that a listener, faced with a series of juxtaposed events and being led to believe that they are music, will tend to hear them as such. Brains hear patterns and connections, or certainly seem to try their hardest to. In a sense the function of "composer" then becomes shared between me (who set the thing in motion) and the listener (who connects it together mentally). I still think it's a breakthrough to say, after five hundred years of people creating works of art that relied on synchronized behavior: let it run free — it will appear connected . . .

These pieces were a success in that they generated types of music that one wouldn't have arrived at by other compositional techniques. There is something distinctive about these works. I have always, though, thought that they were just the beginning of something more interesting, of pieces of music that could not only create themselves, but do it in some kind of adaptive, evolving manner.


This next step is what has eluded me. Listening to my pieces, I used to hear particular sequences and clusters that seemed to want to stand alone as little musical organisms within the whole piece. I wanted to somehow isolate and "promote" these; in fact, I was after a way in which the random patternings generated by the original process could evolve into more complex "clumps" that then themselves recurred. I was very conscious of the evolutionary parallel here, and I liked it, but I never really solved the selection problem. Ultimately I just chose bits I liked, but I was unhappy that the criterion of selection — the decision about which clumps survived and multiplied — was only my taste. That seemed a bit of a cop-out to me, since much of what I liked philosophically about the works was that I suspended judgment and let them make themselves. I felt that letting my taste be the deciding factor at this point was somewhat backward looking, a return to the mindframe of traditional composition. Nonetheless, I tried it in a few pieces. On "1/2" (*Music for Airports*), for example, I put material through the permutation process and then edited it in such a way that certain favored sections recurred. Musically I felt this was very beautiful. Philosophically I was uneasy with it.

What I want is to imagine the music as the working out of an internal evolutionary process. What would that mean? It would mean putting together a set of conditions in which the music is able to form itself into "significant clumps," and then creating a way of making those clumps persist and multiply (in music, repetition is a form of structure). This means inventing criteria of selection (by which it is decided that some clumps survive and others don't) that are internal to the work. I don't want to have a God in this universe: I don't want

to be the selector. I want the piece itself to create its own structures internally, and to somehow recognize and favor some of them over others. My other works described above do, of course, create their own structures. The problem is that there is no feedback within the pieces, no way whereby the present condition of the piece can affect its future condition. Things happen, then other things happen: the music doesn't change in relation to its own history but simply carries on permutating, throwing up new patterns. Another way of saying this is that the level of complexity doesn't change over time. In terms of evolution, the pieces are static. It's like the primordial soup continually throwing up new molecules and amino acids which then never combine into larger units. I am making soup — provocative and sometimes very tasty soup — but still soup. I want to try making organisms.

Lately I have become more and more convinced that the clue to making pieces of music that work (because I'm a record maker, that means pieces of music you like listening to as well as find intellectually interesting) is to choose a "rich substrate of combinatoric primitives" as you put it — what I call the basic elements. My own experience is that, if you work with a set of elements that are all compatible in any combinations, then you only have to invent interesting ways of making the combinations happen. I've found that good work can be achieved with very small groups of elements; the substrate does not have to be "rich" in numerical terms, but it must be "richly connectable." And being "richly connectable" means not only that the elements can all fit together, but also that when they do we are able to perceive and care about the difference between various combinations and sequences of them. That means that we have to elicit a sensual involvement with the materials of the piece — which is to say that we have to be richly connected with them.

I've rambled on a bit here, sorry. What I am trying to do is to float a theory of music, I don't know if it's "right" or not, but I'd like to hear how it sits with you, if it seems to make any sense. You'll notice some inconsistencies in what I've said. I'm still busy figuring all this out myself . . .



Occasionally configurations occur which seem quite unlike any of the others, striking us as deliberate and planned and carefully synchronized. I recall at one of my installations hearing the four unsynchronized audio tapes suddenly assemble themselves into the first bars of a Tammy Wynette song. It was just another configuration, as uncontrived as any of the others.



# HOW BUILDINGS LEARN

## An excerpt from Stewart Brand's new book

*"An adapted state is not an end state. A successful building has to be challenged and refreshed or it will turn into a beautiful corpse. The scaffolding was never taken completely down around Europe's medieval cathedrals because that would imply that they were finished and perfect, and that would be an insult to God." Stewart Brand's forthcoming How Buildings Learn (June 1994, Viking Penguin) is a rich analysis of the evolution of buildings after the construction crew leaves. In it, Brand has created a solid foundation for practical architecture, and a complex metaphor for human endeavors. He concludes that evolutionary design is healthier than visionary design.*

*Here's a little piece of this acerbic vision. —JS*

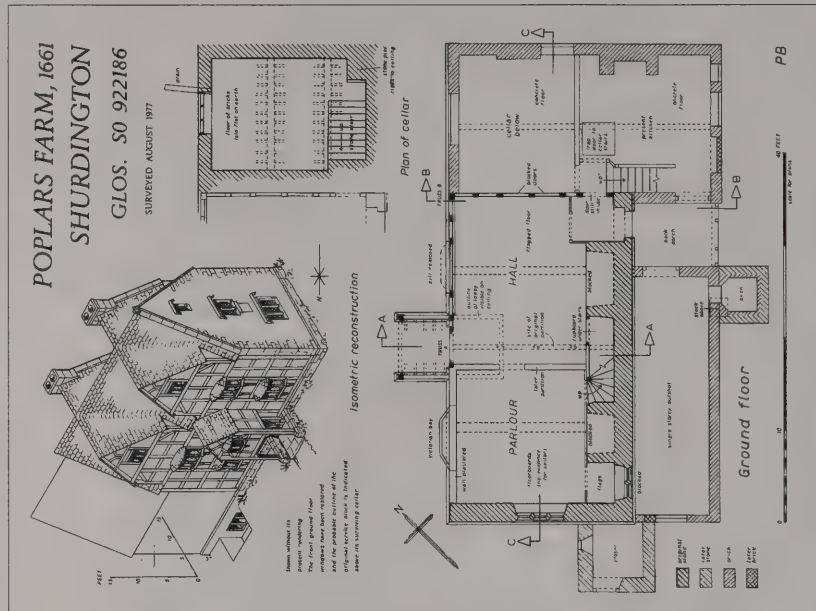
**TIME ANALYSIS of buildings on the scale of decades and centuries is well established in Europe, as in this survey of a 17th-century Gloucestershire farm building. Similar studies could be made of contemporary buildings on a time scale of days, months, and years. Patterns and paces in moving furniture, for example, might suggest what people really would like parts of buildings to do.**

There's no reason to rely only on professionals. This is not astrophysics; everybody is an expert on buildings. Amateur birdwatchers in their legions have profoundly influenced ornithology, population biology, and environmental politics. Maybe amateur building watchers could do the same for the yet-unnamed science of building behavior.

The need is to study all kinds of buildings and all kinds of uses, not just the prestige ones or the high-revenue ones. The point is both objective—knowledge for its own sake in an area of shocking ignorance—and subjective. Our buildings are such disasters that we need detailed evaluation and rethinking at every scale. We need failure analysis that is systemic over the full scope of building-related activities and the entire life of buildings. When we investigate a building that is loved or loathed, it is not a question of praising or blaming the designer or owner but of teasing apart the whole tangle of relationships that make the building work or not. All buildings have problems, but only some correct the problems. What is the systemic breakdown that leaves a problem unnoticed? Or if noticed, unreported? Or if reported, unacted on? Or if acted on, unsolved?

Without that kind of corrective feedback a building can't thrive. Neither can the building professions and trades. A skilled carpenter told me, "I do things better now that I'm older. Why? Because I've spent so much time fixing the things that I did when I was younger."

The research needs academic rigor, but not academic irrelevance. A utilitarian bias should color the collection of information, the testing of ideas that emerge, and the transmitting of the ideas that work. For that reason it's worth taking a purposeful look at how



**1977** - Buildings sleuths, some of them amateurs and hobbyists, love to reconstruct the sequence of changes in venerable buildings. What might they accomplish if set loose on contemporary change in contemporary buildings? This drawing (one of four pages) is by Patricia Borne.



knowledge transmission has worked in the past—*howdo* buildings learn from each other? Cross-cultural study could lend perspective and also be a fount of ideas. I'm acutely aware that a book like this one would be radically different if it expressed European or Asian experience—and what a joy that would be to research.

By considering buildings whole, university architecture departments could reverse their trend toward senescence. They could invigorate the faculty with an infusion of facilities managers, preservationists, interior designers, developers, project managers, engineers, contractors, construction lawyers, and insurance mongers. The departments could promote some of the marginalized people they already have—building economists, vernacular building historians, and post-occupancy evaluators. In that enriched context, what's left of art-oriented architecture would have all that its creativity could handle exploring new syntheses of the flood of data and ideas.

For such research to prosper at either the academic or the grassroots level, data has to cohere to buildings. We need to switch from the hotel-room aesthetic to the mountain-hut aesthetic about the accumulation of information. A hotel room is constantly scoured of any trace of previous use and is presented daily as if brand-new. Mountain huts are exuberant museums of their own past, with each hiker adding comments to the guest book, initials and dates to the woodwork, and food to the larder. What if every commercial building had an on-site journal and maintenance log, which the landlord could not legally remove or amend? What if city halls provided a repository for the full records of every house in town—not just the legal and title records, but photos and memorabilia voluntarily left by successive generations of tenants.

7 Boston architect Bill Rawlin commented on this point: "The Boston Public Library became the depository for all buildings plans submitted to the city. It is an extraordinary resource for anyone planning to change any building. It confirms everything you've said in the record-keeping realm."

(I know from my research for this book that photo archives in libraries are incomparably more usable when organized by building or street address rather than by date of acquisition or name of collection.)

There are so many questions worth exploring. What are the oldest buildings in various cities that still command high rents? What made that happen? What kinds of buildings were torn down, and why? What is the distribution of building types in a city, and how does their longevity sort out? How about in small towns? What is the real distribution of design approaches—how many buildings are specially architected, versus franchise cookie-cutter, versus developer assembly-line, versus vernacular?

A prime opportunity for comparative study would be the uniform arrays of buildings all constructed at once, such as in the original Levittowns. What was the pace and range and process of their subsequent divergence? Architects like to think that upscale suburban developments like Greenbelt and Holland Hills near Washington haven't changed much since they were built, and that's supposed to be a measure of their success. Is that true, or is the rapid change in the humble Levittowns an indication of the owners taking charge of the buildings and gaining greater satisfaction than the more passive tenants of Greenbelt? Which was the better investment?

What would an architecture student learn from accompanying a remodeling contractor through a series of jobs? How about following a building inspector around for a few weeks? Is there pattern to the realities they encounter? How does it match with the conventional wisdom taught in school?

What might be learned from highly detailed longitudinal studies of buildings in use? What changes from hour to hour, day to day, week to week, month to month, year to year, and over decades? This kind of study is the norm in ecology and some of the social sciences; there's no lack of lore about how to do it.

It would be interesting to investigate what happens with





**December 1988** - After two years in business, Phelan's was still in its original one big room, with mail order shipping on the far left, mailing on the far right, and customer service (taking phone orders) on the near right. This series of photos is the reverse view of what's on pp. 30-31.

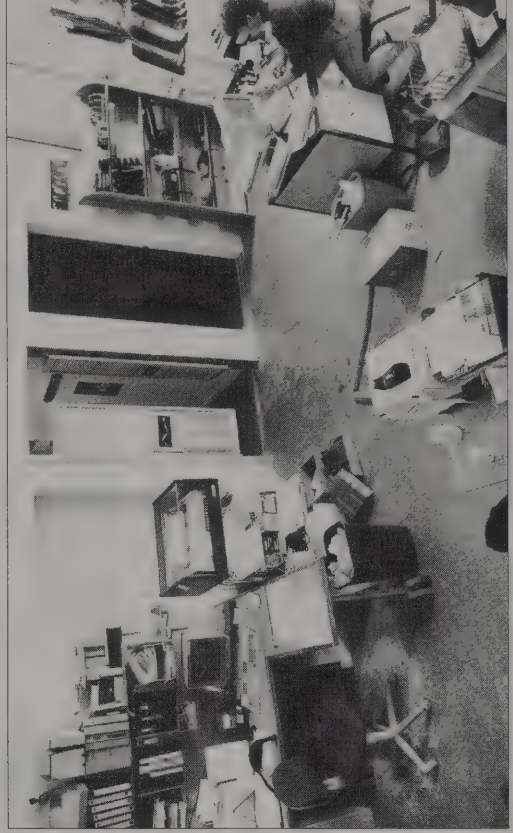
**MONTHLY PHOTO-STUDY of a high-volatility work environment revealed patterns of furniture migration and shifts of workgroup boundaries. Constant change was both necessary and easy for Phelan's—an equestrian mail order catalog in Sausalito, California. Necessary because it was growing from \$0.5 million/year revenues to \$3 million in two years. Easy because it had cheap recycled furniture in cheap, roomy Low-Road space (a leftover World War II shipyard building).**



**21 March 1991** - Two-plus years later, the customer service area was wholly different. It had all-new furniture and filled the foreground. Since the adjoining bay behind the door had been taken over, the former hall into it had become a dressing room for customers; a bathroom door was added on its right, and a door on the left had been built and then closed up.



**21 June 1991** - Three months later (I was taking monthly photos from 22 locations in Phelan's, always at 2:30 pm), the desks in the right foreground had shifted around, and the printer on the far left acquired a cover. The display shelves formerly next to it had been replaced by a clothes rack for a summer sale. (The showroom of products for walk-in customers had grown from the distant right to include the area around the dressing room.)



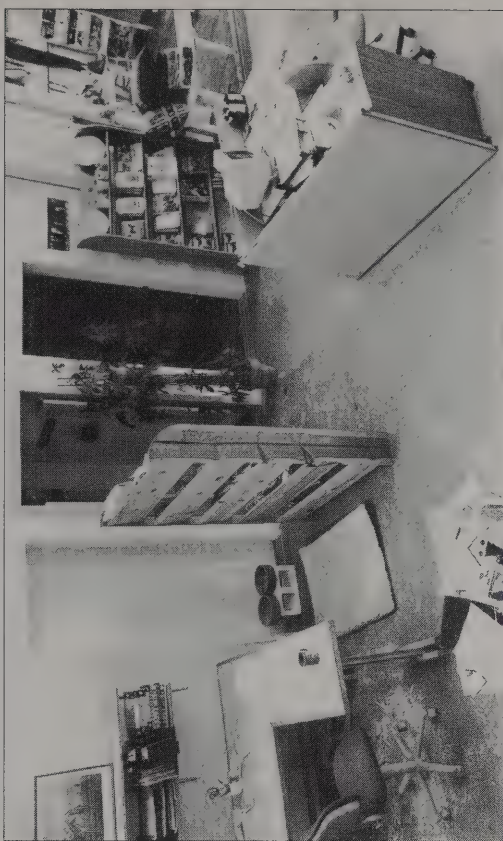
**23 August 1991** - Two months later, the clothes rack had gone, and the desks for customer service had retreated to the right. Partly they were pushed back by the intense traffic in the area—customers coming from the right, plus the growing number of staff walking from new space to the left and from upstairs behind the camera to use the company's only bathroom (center, dark). Also some customer service people had moved into new space elsewhere in the building.



**25 September 1991** - One month later, the display shelves were back. And customer service desks on the right were beginning to encroach back out into thoughtware space—each person on the phone was trying to get away from others so they could hear better.

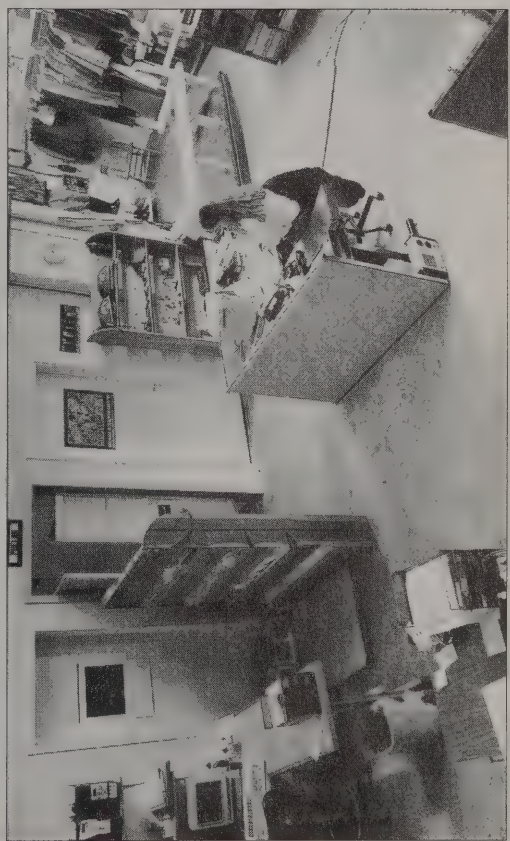


**13 November 1991** - Two months later, the printer has been replaced by a dog (food and water dishes, plus rug)—two burglaries had encouraged the adoption of a German shepherd for security. The new desk and dividers on the right came almost free from a software company that had moved.



Judging by these photos, office workers like to move their furniture much more than they're allowed to in most work environments where the space plan and management are too restrictive, or the furniture is too heavy. Constant, searching micro-adjustment is both empowering and adaptive. The boundary of a workgroup will flex back and forth between local and organization-wide needs.

**21 March 1992** - Four months later, the pace of change had slowed. The nation was in a recession, and Phelan's had stopped growth for better profitability. The customer service desks continued to encroach outward.



**22 October 1992** - Seven months later, the dog had acquired a cushy mattress and her own dividers. Approaching the peak season of Christmas orders, management required that there be a centralized workspace (center right) for all customer service "problems"—back orders, call-backs, returns, etc. Display shelves and a tall divider protected the privacy of the work surface—the very same piece of furniture that occupied that space four years before in 1988.



All photos, Brand.



sequences of buildings that might be learned from experience. Dozens of Hyatt Regency hotels have been built around their trademark cavernous atriums. Are the later ones improvements on the originals? Did the originals later get adjusted to take advantage of what proved effective in the later ones? How is that body of experience expressed to the designers?

Conversely, what keeps proven good new ideas from being widely utilized? What are the mechanics of blind conservatism? (And what are the advantages of blind conservatism?)

Another non-event worth scrutiny is buildings that don't change. Is it because they're perfect as is, or revered as monuments, or administered from too great a distance or through too many layers of bureaucracy, or is it that the occupants are old and set in their ways, or they can't afford change, or the material is physically impossible to alter, or what?

What are the usages that nourish buildings? And which ones destroy buildings? And which preserve them intact for revival later?

Suppose the kind of close study expended on shopping malls were applied to a couple of barrios. What does their rampant improvisation have to teach formal design? What does their responsible illegality suggest about amending property law?<sup>8</sup>

Ships are the best-documented large structures in existence. Might they be studied simply as buildings? Could some of their high-density design and rigorous servicing discipline be transferred to ordinary buildings?

This book and others are full of unsupported hypotheses that would not be hard to prove or disprove. Are Modernist buildings that are designed "inside-out" really less adaptive than more traditional buildings designed "outside-in"? Find a few classics of each type and compare their histories. Does greater adaptivity go along with greater maintenance, or the opposite? Watch some low-maintenance and some high-maintenance buildings and see what happens.

How important is local control? An intriguing project would be to design some houses and small commercial buildings specifically to be serviced and maintained by their users. Only amateur skills would be required, and everything that needed work would be self-obvious. No outside expertise or special materials necessary. Maybe this is the secret of high longevity at low cost—like the Volkswagen beetle.

Architects talk about "daylighting as formgiver" and "sunlighting as formgiver." What kind of buildings might reflect "time as formgiver"? If my adaptation of Frank Duffy's layering of buildings into Site-Structure-Skin-Services-Space-plan-and-Stuff is correct, how might building design better acknowledge and take advantage of that? All buildings grow, but some grow more outward and some more inward. What are the different advantages of the two paths, and how might initial design serve them best? Since vernacular buildings seem to show exceptional hardihood over time, could there be a subdiscipline of *applied* vernacular studies that would inform the cutting edge of design theory?

Then there's social context. What happened in Britain and America that made building preservation suddenly an irresistible force? What might make that transition happen in the city-trashing

8 In Peru's barrios, writes Hernando de Soto approvingly, "First, the informals occupy the land, then they build on it, next they install infrastructure, and only at the end do they acquire ownership. This is exactly the reverse of what happens in the formal world, which is why such settlements evolve differently from traditional urban areas and give the impression of being permanently under construction." Hernando de Soto, *The Other Path* (New York: Harper & Row, 1989), p. 17.

9 A jolting view of the present is in Sherry Ahrentzen, *New Households, New Housing* (New York: Van Nostrand Reinhold, 1989). "The fastest growing household type is the single person living alone; persons living alone comprise 24 percent of all households. Single-parent families account for 12 percent. America's 86.8 million households are still dominated by the 50.3 million families maintained by married couples. Yet even within the conjugal family, lifestyle changes have occurred. Over 60 percent of married women with dependent children are in the paid labor force, compared to 18 percent in 1950. Nearly 53 percent of married women with children under 6 years of age are employed. Only 10 percent of households consist of an employed father, a homemaker mother, and children younger than 18."



go-go economies of Southeast Asia? (Singapore, which adopted preservation almost overnight, would be an illuminating study.) How is the nature of human organization changing, and how are buildings reflecting that? A history of the office in this century would reveal a great deal. So would a history of the family.

All of these are pieces of a larger question: how does procedure learn? How do organizations adapt; how does design improve; how do strategies become robust? What differentiates that kind of self-improvement from mere succession? Some theorists say that any entity that learns must have a model of itself that can store past lessons and make future conjectures, but others say that's not necessary or may even cripple the immediacy of real learning. Who's right? Surely there's a whole taxonomy of subspecies of learning worth differentiating—unconscious learning, accelerated learning, wrong learning (supersition), goal-directed learning, aversive learning, situated learning, pseudolearning, creative forgetting. Organizational learning has been dissected by theorists Gregory Bateson and Chris Argyris into three levels: adjustment to a norm, change of the norm, and change of change. (This is seen in the pedagogic sequence of learning a language, learning languages, and learning to learn languages and hence anything.) Might that layering be reflected in a building designed for multi-level adaptivity? Maybe *that's* what Architecture Department buildings should be designed to handle—triple-level learning.

Since every building is expected to reach out thirty to one hundred years into the future, it's astonishing that the building industry doesn't do extensive futures research. Perhaps it's a paradoxical effect of the acceleration of change in our lifetimes. The very compression of events that makes futures study more necessary makes us more ahistorical in our outlook. We're too immersed in the onrush of change (no one calls it progress these days, interestingly) to do much looking backward or forward, and so we put ourselves at the mercy of events, repeatedly surprised and baffled. Buildings might help us out of that impasse. Their material persistence steadies us. Embodying the past, they invite

us to think seriously and confidently about the future.

What, for example, might architectural futures-study focus on in the mid-1990s?

Some of the future is already in the pipeline—inevitable unless there's an asteroid collision. The most certain and influential of these is age distribution in the population. While the developing world (formerly called Third World) is getting radically younger, the developed world is getting markedly older. Older people prefer familiar buildings, especially in a time of disconcerting change, and they can overwhelm youth's desire for something new by the sheer weight of their numbers and wealth. Older people hold on to their houses and change them to suit themselves, rather than trading up as they did when they were younger. The very advances in technology that make society conservative about buildings also make it technically easier to preserve old buildings and to update their services in subtle ways. And accommodating the disabled has proved, as it often does, to be prescient for the society as a whole. Wheelchair ramps and low-piled carpets, roomy bathrooms and lever-handled doors are a convenience for all of us as we slow down.

At the same time, formerly youthful environmentalists have come into power in business and government and are converting what used to be the shrill demands of outsiders into the law of the land. Health-conscious oldsters are supporting them. Buildings will be ever more stringently regulated in terms of their air quality, electromagnetic radiation, safety, energy use, and other issues yet to be identified.

Futurists always include technology as one of the driving forces in the future of nearly everything, from archaeology (DNA reconstitution) to literature (multimedia). What technologies will drive building construction and reconstruction? William Morris declared in 1892, "The subject of Material is clearly the foundation of architecture." These days architecture has no need to be innovative in materials science, since it can so easily borrow. One



observer notes,

Sir Norman Foster is well known for his ingenious early use of components and materials that have their origin in industries far removed from construction: solvent-welded PVC roofing derived from swimming pool liners, gaskets of neoprene developed originally for cable-jacketing, structural glazing and glass fritting from the auto industry, superplastic aluminum and metalized fabrics from aerospace. Even Foster's presentation-drawing techniques are culled from aviation magazines.<sup>10</sup>

Factory manufacture has increased the use of synthetic materials and has brought high quality, low price, and a surprising degree of customization of components with it. A trade magazine reports that the use of plastics in construction is growing by 5 to 6 percent a year, reaching 43 pounds per thousand dollars of construction in 1989, having doubled in seven years.<sup>11</sup> Plastic is used in everything from planklike Durawood (made from recycled plastic containers) to soft bathtubs and flexible granite (no kidding; eighth-inch-thick granite-and-polymer veneer can be heat-formed to a fourteen-inch radius).

Such composite materials come from a long tradition. Renowned classical Roman buildings were made of concrete. Plywood furniture is found in ancient Egyptian tombs. Many a centuries-old decorative ornament in Europe is made of "composition"—animal-hide glue, burnt sienna, oil, whitening, and water. Modern ornamental materials include polyester, polyurethane foam, and fiberglass-reinforced gypsum. Fiberglass-reinforced concretes and polyesters are strong enough to imitate all sorts of traditional structural materials, and the drive for their innovation, ironically, has come from the boom in building preservation. The substitutes are lighter, cheaper, and easier to install than the decayed stone, plaster, or carved wood they replace, and they look exactly the same. The entire marble portico of an 1899 mansion in Lenox, Massachusetts, has been recreated, down to the last curlicue, out

of fiberglass-reinforced polyester. A product called Cathedral Stone can be molded by hand to duplicate ancient masonry. Come back a week later when it's cured and you need a hammer and chisel. A little instant aging with muriatic acid makes it look just like the real stone next to it.

What are we to make of all this apparent fraudulence? As a boat lover I remember when fiberglass boats first came along in the 1950s, and everyone said they would never work, never sell, never last. Wrong on every count. Fiberglass boats are lighter and stronger than wood, more intricately shaped, and they endure negligent owners, which wood cannot, because they are immune to teredo worms, dry rot, and baking sun. Fiberglass never leaks; wood always does, top and bottom. And yet a magazine called *Woodenboat*, founded in 1969, became one of the all-time publishing successes through worshipping the virtues of wood in boats. Those virtues consist entirely of the aesthetics of tradition and the discipline of managing a short-lived material. I have owned and sold an excellent plastic boat and owned and kept a troublesome wooden boat. Why? The wood feels better, and I can fiddle with it. But if I really had to sail somewhere, I'd get fiberglass or steel.

I think that's what is happening with buildings. The ones that

10 Martin Pawley, "The Case for Uncreative Architecture," *Architectural Record* (Dec. 1992), p. 20.

11 Marylee MacDonald, *The Journal of Light Construction* (July 1990), p. 16.

12 One electronic device I can't wait for is "active noise control"—computerized noisemakers that duplicate a routine source of noise and rebroadcast the sound 180 degrees out of phase with the original and thus effectively silence it. They cancel the din at the point of origin or at your ear, whichever is more convenient.

13 *Science* (17 Jan. 1992), p. 284.

14 With the passing of the Cold War, the vast defense industry is under pressure from government to swerve its technology toward what is called "dual use." Meaning: figure out some civilian applications or go out of business. Defense contractors are making calls on architects to push "smart materials."

15 John Ruskin, *The Seven Lamps of Architecture* (New York: Dover, 1849, 1880, 1989), p. 186.



have to sail somewhere will be made of advanced materials. The ones that can be appreciated for the luxury and cost of touchable aesthetics (or whose labor costs are irrelevant) will stick with traditional materials. And most of the advanced stuff will ever more convincingly, and ironically, imitate the traditional, leading civilization into what Umberto Eco calls "hyperreality"—the realm of the exaggerated, proud, absolute fake.

Everyone expects electronic technology to transform building use. It already has, several times, but there are lots of false starts. The "intelligent buildings" fiasco of the early 1980s will probably be repeated in what the National Association of Home Builders wants to call "Smart Houses." This highly centralized, highly integrated, wire-based, skill-intensive approach attempts to install utter convenience and is more likely to install utter frustration. There is a standards battle going on between competing systems. People will be as baffled trying to program their house as they were trying to program the early video cassette players. I think that integrated electronics is indeed coming to the home, but by way of simple-minded wireless hobbyist devices, easy to buy one by one, easy to move around, easy to adjust to each other. Amateur house-hackers will have the garage door, the motion sensors, the phone, and the coffee maker all talking to one another by radio waves.

A deeper revolution is evident in the title of a technical magazine founded in 1991, the *Journal of Intelligent Material Systems and Structure*. Self-sensing and self-healing materials are on the way. A researcher named Carolyn Dry, impatient with standard concrete ("brittle, porous and very dumb"), has developed a concrete laced with two kinds of fiber—one that detects when the steel reinforcing bar is corroding and releases an anti-corrosion chemical, and another that notices cracks and fills them with glue.<sup>13</sup>

The parallel advances of biotechnology and nanotechnology (molecular engineering) are bound to infect materials with either biological or nanocomputerized sensitivity in the coming decades. "Biobuildings" or "cognitive buildings" could brighten real-estate

hopes for premium rents. Computerized weapons systems, these years, are graded by their designers in ascending order as: dumb, smart, brilliant, and moral. Materials systems will no doubt climb the same curve, and we can contemplate the coming of moral plastic.<sup>14</sup> In that case there will be added to the Low Road and the High Road an exquisitely tunable High Tech Road. It will be obvious how those buildings learn. They learn by paying attention.

But how might such buildings avoid making civilization even more pathologically ahistorical than it is? At times our era seems to enact Dante's warning, "Without hope we live in desire." Could our artifacts embrace enough future with enough liveliness to embody and radiate hope? Ruskin's plea was, "When we build, let us think that we build forever. Let it not be for present delight, nor for present use alone; let it be such work as our descendants will thank us for."<sup>15</sup> How exactly do good ancestors design?

Here's an exercise. Computer scientist Danny Hillis has proposed the making of "a large (think Stonehenge) mechanical clock, powered by seasonal temperature changes. It ticks once a year, bongs once a century, and the cuckoo comes out every millennium." The point is to have a charismatic object that helps people think long-term. No doubt a monastery of sorts should take care of the clock and its visitors, and also attend to other civilizational errands that operate at its pace. What kind of building would serve? No monuments, please. The design problem is to start a building which knows about centuries yet adeptly meets the needs and employs the tools of decades.

Time cures. In Tennyson's poem *Sir Bedivere* is mourning the passing of the Round Table, and the dying Arthur reassures him, "The old order changeth, yielding place to new,/ And God fulfills himself in many ways,/ Lest one good custom should corrupt the world." Instant-gratification, universal-standard buildings are corrupting. What is called for is the slow moral plastic of the "many ways" diverging, exploring, insidiously improving. Instead of discounting time, we can embrace and exploit time's depth. Evolutionary design is healthier than visionary design.



## Sites

Architecture is a word that has become difficult to use with precision. The profession has been largely taken over by planners and the corporate developers who carry out the plans. Buildings tend to be either mundane or absurdly irrelevant. Not all architects have capitulated, though. You'll find the thoughts and work of some of those still awake in this handsome, literate magazine.

—J. Baldwin

In scientific culture, the field of chaos mathematics maps methods to produce mathematical analogs of natural phenomena.

Fractals may be used to represent clouds, trees, imaginary landscapes, as well as their growth and transformation. These mathematical tools are exploited in the scientific establishments and entertainment industry to continuously accelerate our capabilities to represent any form, any type of transformation.

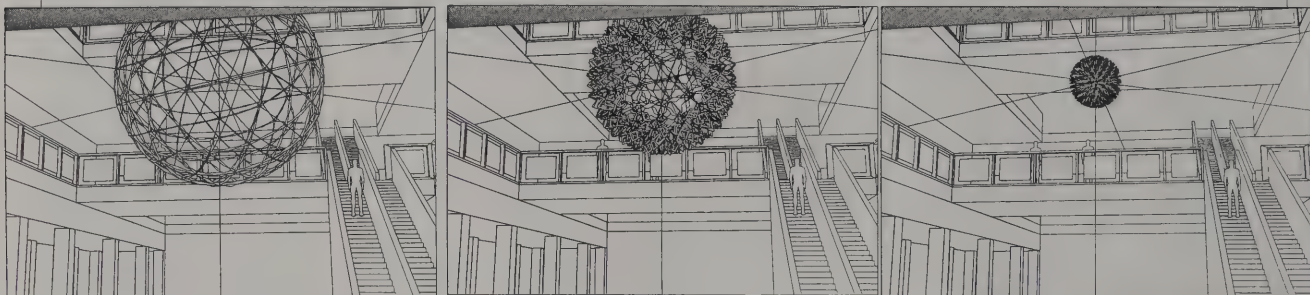
A basic question is: If this type of visual media is the key expression of the characteristic technology of our time, what is the place of the built environment and the designed object in relation to it? I see folding structures as providing a kind of bridge between the hyperactive electronic media and the static built environment.

—Chuck Hoberman



### SITES

(A Literary/Architectural Magazine)  
Dennis L. Dollens, Editor.  
\$20/year (1 issue) from Lumen Inc.,  
446 W. 20th St., New York, NY 10011;  
212/989-7944

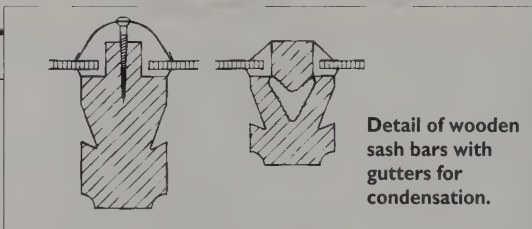


**Liberty Science Center, Liberty State Park, N.J.** Expanding aluminum and stainless steel geodesic globe suspended in museum atrium. Motorized, it continuously opens to 18 feet and closes to 4 1/2 feet.

## Houses of Glass

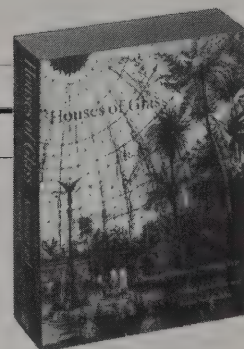
To a nineteenth-century citizen used to opaque, thick-walled buildings, the bright interior of a glasshouse must have been astounding. Even today, a walk through a conservatory or greenhouse feels good — at least it does if the climate is controlled. The glasshouses of times past had problems with heating and cooling as well as with water leaks and high maintenance, making the visually pleasant spaces intended for plants not so pleasant as living spaces for people. Such problems have been solved with modern technique and material, but in our democracy, codes still forbid most of us to live in one.

In any case, this book shows a rousing collection of glasshouses in photographs and illustrations, accompanied — uncommonly — by drawings, plans and structural details. All this is presented as an academic discussion, but with a bit of imagination you can take the book as a celebration of light and the twiggy structures that admit it, and the daring of inspired engineers and their financial backers. —J. Baldwin



Detail of wooden sash bars with gutters for condensation.

The existence of the glasshouse is inconceivable without the reality of the cities created in the nineteenth century, with their colossal masses of masonry and their menacing human swarms. It is an expression of the opposition to the progressive isolation of industrially organized human beings from their contact with nature and of the unrenounced claim to recreate this union, even if only by way of illusion. In the secret world of the hothouse nature is on display, like an uncovered picture, as the illusion of a wide world, and simultaneously as a tangible earthly paradise brought nearer to hand. In the setting out of the display there is, however, a completely irrevocable separation from the object on which the gaze falls; nature is no longer available in its pure and guileless form but has a market value. She opens a window on to the tropics for an entrance fee. The more crowded the city, the greater was the desire for the delight of looking at nature this way.



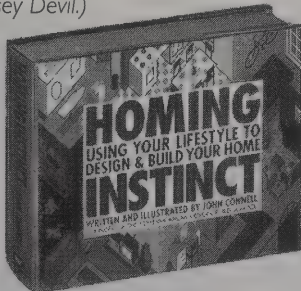
### Houses of Glass

(A Nineteenth-Century Building Type)  
Georg Kohlmaier & Barna Von Sartory.  
1991; 641 pp. ISBN 0-262-61070-1  
\$37.50 (\$40.50 postpaid) from The MIT Press/Order Dept., 55 Hayward Street,  
Cambridge, MA 02142; 800/356-0343



## Homing Instinct

You can merely occupy a house, or you can make it a home that is unique and satisfyingly yours: home as self-portrait. Here is how to think about designing your (conventional) home from scratch or by remodeling — then go beyond the talk to make it happen (though you certainly won't be finished with the learning). At the book's heart is what amounts to the curriculum of the famed Yestermorrow Design/Build School in Warren, Vermont, which the author founded. As is true of any architect-client relationship, his approach may or may not be what you need. If it's to your taste, you'll find the book useful. If it isn't your style, the book can still serve as a review. It starts at square one. —J. Baldwin (Suggested by John Ringel, a Jersey Devil.)



### Homing Instinct

(Using Your Lifestyle to Design and Build Your Home)

John Connell. Warner Books, 1993; 416 pp. ISBN 0-446-51607-4

\$35 (\$37.50 postpaid) from Little, Brown & Co./Order Dept., 200 West Street, Waltham, MA 02154; 800/343-9204

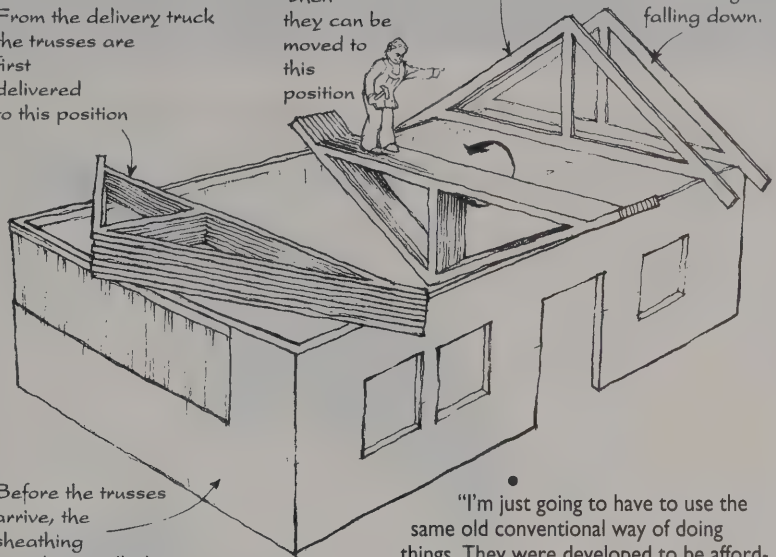
The whole reason for using trusses is to reduce labor costs by speeding erection

From the delivery truck the trusses are first delivered to this position

Then they can be moved to this position

Finally, each one is carefully installed in this position

Note: these must be braced against falling down.



Before the trusses arrive, the sheathing must be installed to prevent racking from trusses laid on frame.

"I'm just going to have to use the same old conventional way of doing things. They were developed to be affordable and they still are. What's the matter with tradition? If it ain't broke, don't fix it. My budget is small and I can't afford to be politically correct."

"But now we're creating the tradition," counters another student. "Why must we build stupidly just because others have? If vernacular architecture means houses designed in response to the culture and surroundings of the occupants, then current vernacular needs some updating. I would rather build a small, well-made home than a big stupid one. When we're gone, which do you think will get torn down first?"

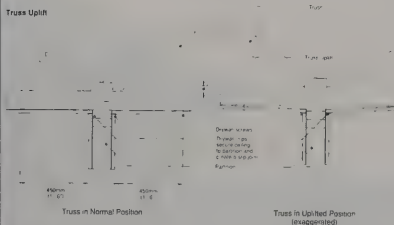
Today's practice of purchasing homes as if they were products continues to propel us in a nonsustainable direction. Only when people reinvolve themselves in the making of their homes can the act of dwelling reflect a new and ethically sound global awareness.

## Wood Reference Handbook



Of course a handbook by the Canadian Wood Council is going to be straight-grained, so to speak, never mentioning such knotty issues as the merciless stripping of Vancouver Island (see *Clearcut* p. 113). But just about everything else

about wood in North America is in this remarkable handbook. The Wood Council serves as a clearinghouse for reliable, field-proven information for wood-users, and also helps establish standards. Here's what's known about building with wood. The latest methods and detailing are shown in photographs and high-quality drawings. Tables tell you the limits. Color plates of wood structures show you the limitless. In Canadian, but it translates well. —J. Baldwin



In situations where differential moisture conditions between the top and bottom chords are expected, a slip joint detail can be used to allow for movement without damage to interior finish.

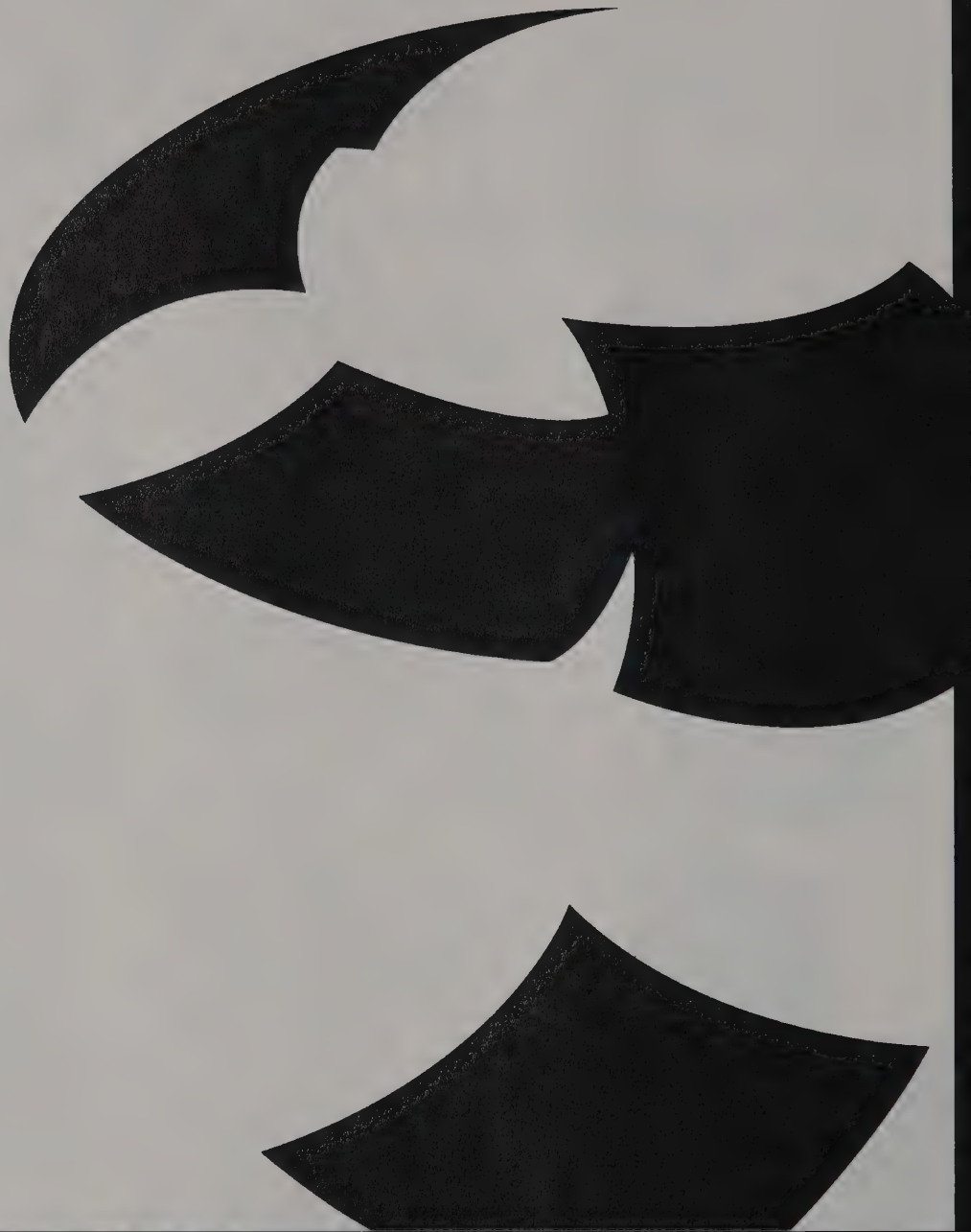
### Wood Reference Handbook

(A Guide to the Architectural Use of Wood in Building Construction)

Canadian Wood Council. 1991; 576 pp. ISBN 0-921628-10-2

\$75 postpaid from Van Nostrand Reinhold/Order Dept., 7625 Empire Drive, Florence, KY 41042; 800/842-3636







# MacMagic

**BY DIGGER**

*MacMagic is about storytelling and letting young people feel the heady satisfaction of real show-and-tell.*

# H

**HALF THE KIDS** entering Davidson Middle School in San Rafael, California have trouble finding their way to a period in a simple, declarative English sentence. Yet, plunked in front of a computer with a video camera and a tape recorder, these sixth, seventh, and eighth graders become mavens of multimedia, constructing elaborate stories in pictures and words that truly communicate.

The kids call it MacMagic and it just may be. Students in Davidson's multimedia classroom gather around computers in animated, clamoring groups as if they have a test version of some cool new interactive computer game. Not so. What appears on their screens is the crazy quilt of Manifest Destiny — the very same lesson that puts other kids into deep-yawning yoga. What makes these kids different? These multimedia history lessons were created for the kids by the kids. The teacher points them in a direction and the students do the rest. Every group is free to shape its own interpretation of the events in the lesson.

Seeing 150 students a day and teachers from all over the world in its summer classes, MacMagic is at the age of five the oldest interactive multimedia teaching program in the country. MacMagic students have been featured on CNN and had their own live satellite link with a school in Washington D.C. They also helped launch a thirty-two page, four-color monthly newspaper called *Fast Forward* that is by kids and for kids.

What is truly remarkable about the MacMagic story is its setting. Davidson Middle School is one of those public schools that administrators and politicians call "challenged." Its utilitarian Gulag-like buildings lie along the border between low-grade warehouses and boxy, hillside apartment complexes. Half of its students are drawn from recent immigrant families who, in spite of the worldwide penetration of American television programs, find themselves lost in a culture that is quite new and mysterious.

Davidson is not the sort of place you would expect to spawn a program

*When we started talking about the following piece, it was in the context that the Davidson School had an average student tenure of four months. The Canal District is a neighborhood that functions as a bus station for immigrants (legal and not) who are passing through on their way to America.*

*At the intersection of commerce, family, and government lies the educational system. This delightful piece shows the benefit of raising the ante from the commercial sector.*

*Jerry George is variously our head prankster, ex-director of the San Francisco Book Fair, a biologist, a writer of mystery novels, and a man who never sleeps. —JS*



Apple donated computers, scanners, printers and software. Lucas Arts supplied the cameras and technical know-how to train teachers on how to get stories out of hardware.



like MacMagic; not where a reasonable person would place so much hardware. Yet Davidson was exactly what MacMagic's creators were looking for.

Five years ago a clutch of innovators from Apple Computer's Classrooms of Tomorrow and the George Lucas Educational Foundation set out to show that computers and other digital media could be effective tools for education. They searched the country for a prototypal school and settled on Davidson *because* of its broad ethnic, social and economic mix and its proximity to the technical forces of Lucas Arts. If multimedia education could work there, it could work anywhere.

Apple donated computers, scanners, printers and software. Lucas Arts supplied the cameras and technical know-how to train teachers on how to get stories out of hardware. Marin Community Foundation funded teacher training.

Genevieve Colteaux, a lifetime

classroom teacher who now honchos MacMagic, says that back then she and the other teachers didn't even know how to turn on a computer. The learning curve was steep. In October 1989, just after San Francisco's most recent major shaker, a nervous core of two teachers and two advisors from Lucas Arts launched the program with a lesson for eighth graders on earthquake preparedness.

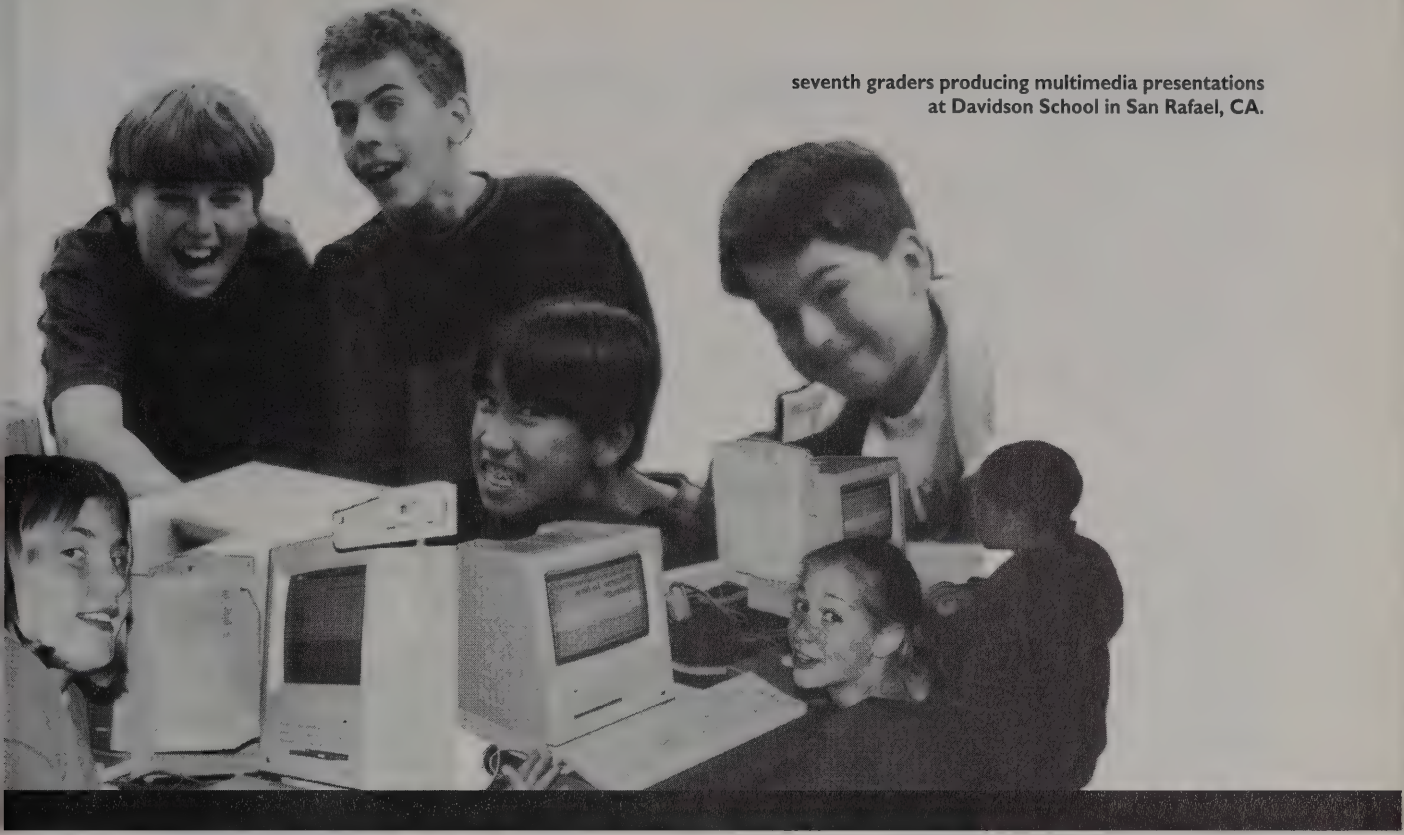
The school combined language arts, social studies and an elective technology to create a three-period block in which to mix lessons and creative time. Lessons were developed to expose students to the full range of available tools — incredible tools for a public school, even now. Twenty-eight Macintosh SEs were networked with the scanners, printers, digitizing video cameras, and tape recorders.

The only limitation in the system was the application software — MacWrite, MacPaint and

HyperCard — Apple software that is open-ended to encourage the students to develop their problem-solving and critical-thinking skills. Teachers acted as facilitators; students were responsible for their own education.

Like with most innovations, MacMagic's group organization was, in part, expedient. With thirty students in the lab at a time, each of them with different learning speeds, there was only one option — put the kids in charge. It was a brave move and the results are the real magic of the program.

Small groups of students working and talking together develop an appreciation for each other as learners and as people. When one student stumbles on a problem, another student is there to help. Teachers are not the only source of ideas or answers and the students who need individualized instruction get it — from other students. Cooperative education.



"By the end of the year," Colteaux explains, "every student has had the opportunity to work with every other student in the class."

Projects may take several weeks. Each leads to a multimedia report. As they master real skills in using the hardware, students also develop self-confidence and face-to-face, problem-solving communications tools that are useful in their current technological context.

In one project, MacMagic students are directed to the native plant garden behind the school and are told to observe whatever strikes their fancy using all their senses, take notes about what they find, then make a sketch. Back in MacMagic, the students brainstorm together in groups, write draft reports in MacWrite (which are peer edited), then transfer their sketches into MacPaint or return to the garden with a digital camera. Each tool has embedded lessons. Sitting in the garden with a video

camera teaches camera technique and picture composition. Laying out HyperCard stacks teaches story line development.

For another project the students create a multimedia family history or autobiography. Students interview family members with tape recorders. They scan pictures from family albums and draw family trees. Then they assemble all the pieces in a HyperCard stack for presentation.

While there is lots of talk in these projects about scanners and how to manipulate a bit of text or graphics, MacMagic is not about technology, not specifically. That is its real innovation. MacMagic is about storytelling and letting young people feel the heady satisfaction of real show-and-tell.

Davidson Middle School students are like kids anywhere. Television is a potent force in their lives. MacMagic gives them the tools to tell stories visually, the way they

are used to seeing them on television. Given these tools and the responsibility to use them effectively, Davidson's kids become genuinely curious about the other elements of storytelling — words, picture composition, group dynamics, and drama.

Who knows where that kind of trust might lead? Last summer Davidson students produced what may be the first multimedia CD-ROM magazine done entirely by kids for kids. Video cameras in hand, they sallied out into the streets to film restaurant reviews (complete with sounds of flushing toilets to rate the bathrooms), the local Farmer's Market, interviews, and personality features. Then they returned to MacMagic where they mixed it together as *The San Rafael Community Express*, a kid's eye-view of their town.

MacMagic kids have learned how to use technological tools to make their visions real. That is magic. ☺



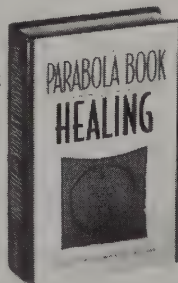
## The Parabola Book of Healing

Another book on healing?? Ahhh, but this collection is a rich melody of wise voices — a haunting tone poem whose golden beat is the age-old search for the elusive and hidden powers of sickness and cure. Hypothesis, metaphor and experience sing out. My heartstrings vibrate in inspired contemplation.

—Andrea DuFlon

■ The illness genre ought to have a literary critic — to talk about the therapeutic value of style, for it seems to me that every seriously ill person needs to develop a style for his illness. I think that only by insisting on your style can you keep from falling out of love with yourself as the illness attempts to diminish or disfigure you. Sometimes your vanity is the only thing that's keeping you alive, and your style is the instrument of your vanity. It may not be dying we fear so much, but the diminished self.

■ Buddhists view suffering as an elemental process of life, something that pervades virtually every experience. For instance, even if I feel very cold and then go out into the sun, that becomes a source of warmth, comfort, and happiness for me, but at the same time I begin to worry if it will last, or I am already creating the cause for sunburn — so that every happiness or comfort has a source of discomfort and suffering imbedded within it. And although we understand this with our minds, our emotional life cannot really figure it out. The way Buddhist physicians approach a suffering patient, therefore, is first to create a tolerable comfort zone, and then begin to address the nature of suffering, without this appearing defeating or punishing to the patient. We all have to understand that underlying every form of human experience, there is the potential for suffering. And from the Buddhist perspective, this is not taken negatively or with a sense of despair — you don't allow it to overwhelm you. It is just another experience of the psyche, and we can develop the capacity to see such experiences with a quality of detachment.



### The Parabola Book of Healing

Lawrence E. Sullivan. 1994; 228 pp.  
ISBN 0-8264-0633-5  
\$22.95 (\$25.95 postpaid)  
from Continuum Publishing Co. c/o  
Publisher Resources, PO Box 7001,  
La Vergne, TN 37086-7001; 800/937-5557

## Femalia

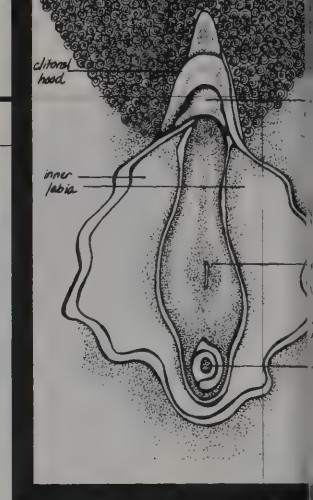
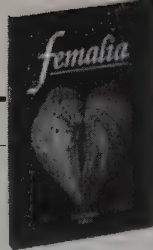
This work is a photographic representation of women's genitals. The photographs are well done and on the border of being art. They show that each human body is unique and beautiful. Much like the snowflake, no two are exactly alike.

Too few depictions of the female body show its diversity in such detail. The vulvae displayed were selected from thirty-two women of varied ages, races, and ethnicities. Some have experienced childbirth. There is no narration. Just who has experienced what is left to the imagination.

My experience with viewing bodies, other than mine, has been in two areas: scientific and romantic. Now there is **Femalia** — straightforward photos of the facts.

—Crème de Meant

938 Howard Street, Suite 101, San Francisco, CA 94103; 415/974-8985



### Femalia

Joani Blank. 1993;

72 pp. ISBN 0-940208-15-6

\$14.50 (\$18.25 postpaid) from Down There Press,

## Nude and Natural

As I was thinking about magazine redesign, the latest issue of **Nude and Natural** appeared in the Whole Earth bathroom. The once-stodgy journal used to look like **Naked Republicans Weekly**. Issue 13.2 sports an astounding photography section and assertive articles on body acceptance, breast cancer, breast-feeding, and online naturism.

This is a near-perfect transformation. It cares for core readers while enlivening the area. —JS



### Nude & Natural

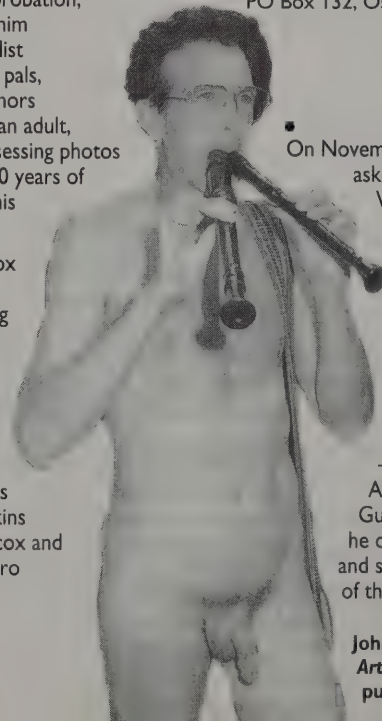
(The Quarterly Journal of Clothes-Optional Living)

Lee Baxandall, Editor.

\$25/year (4 issues) from The Naturists, Inc.,  
PO Box 132, Oshkosh, WI 54902

■ Attention Parents, Clubs, Groups and Editors. Tim Wilcox, a twice-incarcerated California pedophile, has been released from prison. He no longer is bound by court terms of probation, which constrained him from writing to nudist publications or pen pals, from being with minors unaccompanied by an adult, from taking or possessing photos of children under 10 years of age, or contacting his prior victims.

Unrepentant, Wilcox has aggressively resumed his cunning strategies to gain the trust of nudist parents and organizations. He is known to also correspond under his girlfriend's name, Faye C. Haskins (Mendolsohn). Wilcox and Haskins live in Castro Valley, Calif.



On November 17, Bryant Gumble asked *Today Show* weatherman Willard Scott, who was out in Austin, Texas, if he'd been to any nude beaches there. Scott appeared bewildered.

So after a commercial, Gumble held up a copy of the *World Guide to Nude Beaches & Recreation* so that millions of viewers — and Willard Scott in Austin — could see it. Gumble instructed Scott that he could locate Hippy Hollow and so much else with the help of the *World Guide*.

John Wagner, creator of *Art of Nude Living*, is also a puppet theatre maestro and musician.

## We've Had a Hundred Years of Psychotherapy and the World's Getting Worse

The provocative title of this book is well matched by the ideas it contains. If you do therapy, or if you are in therapy, or have been in therapy, this book of conversations and letters by two "wild men" will make you laugh or get very angry as it ranges over the unquestioned assumptions and concepts that many of us have swallowed whole. Few but James Hillman have the stature and the wit to challenge the entrenched wisdom of psychology and the therapeutic establishment. He and Michael Ventura propose ideas that are meant to be chewed over, and perhaps spit out, but some will need to be digested.

—Alfred Ehlenberger, MD

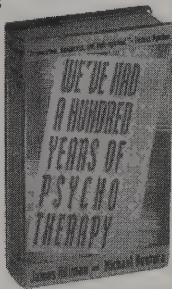
The thing that therapy pushes is relationship yet work may be just as satisfying as relationship. You think you're going to die because you're not in a good relationship....

You just can't make up for the loss of passion and purpose in your daily life by intensifying your personal relationship. I think we talk so much about inner growth and development because we are boxed in to petty, private concerns on our jobs.

The idea of family only exists in the bourgeois patient population that serves

psychotherapy. In fact, the family is largely a white therapist's fantasy.

By emphasizing the child archetype, by making our therapeutic hours rituals of evoking childhood and reconstructing childhood, we're blocking ourselves from political life. Twenty or thirty years of therapy have removed the most sensitive and the most intelligent, and some of the most affluent people in our society into child cult worship. It's going on insidiously, all through therapy, all through the country. So of course our politics are in disarray and nobody's voting — we're disempowering ourselves through therapy.



### We've Had A Hundred . . .

James Hillman & Michael Ventura.  
HarperSanFrancisco, 1992; 242 pp.  
ISBN 0-06-250661-7  
\$11 (\$13.75 postpaid) from HarperCollins  
Publishers/Direct Mail, PO Box 588,  
Dunmore, PA 18512; 800/331-3761

## A Natural History of the Senses

This book is an engaging dive into the world. Sumptuous and sensuous, it's the best read I've had in years. Touching on history, biology, anthropology, art, flatulence, tattoos, beauty, and summer, it tells you things about the senses that will delight you. Reading it is like having a conversation with a gentle and long-absent friend.

After this book nothing will ever look quite the same again.

—Hayward Johnson



### A Natural History of the Senses

Diane Ackerman. Vintage Books,  
1990; 352 pp. ISBN 0-679-73566-6  
\$12 (\$14 postpaid) from Random House/  
Order Dept., 400 Hahn Road, Westminister,  
MD 21157; 800/733-3000

Cover your eyes and you will stop seeing, cover your ears and you will stop hearing, but if you cover your nose and try to stop smelling, you will die. Etymologically speaking, a breath is not neutral or bland — it's cooked air; we live in a constant simmering. There is a furnace in our cells, and when we breathe, we pass the world through our bodies, brew it lightly, and turn it loose again, gently altered for having known us.

It takes a troupe of receptors to make the symphonic delicacy we call a caress. Between the epidermis and the dermis lie tiny egg-shaped Meissner's corpuscles, which are nerves enclosed in capsules. They seem to specialize in hairless parts of the body — the soles of the feet, fingertips (which have 9,000 per square inch), clitoris, penis, nipples, palms, and tongue — the erogenous zones and other ultrasensitive ports of call — and they respond fast to the lightest stimulation. . . . What they record is low-frequency vibrations, the feeling of a finger stroking a beautifully woven sari, for example, or the soft angled skin inside another's elbow.

## Migrations to Solitude

Recently, I fantasized about what it would be like to not have any friends, or any intimate relationships with people. How freeing it would be, I thought, to not have to consider other people, or worry about whether I am being a kind, responsible, decent human being. Reading *Migrations to Solitude* enabled me to indulge my fantasy and creep into the lives of some real loners, hermits, convicts, and spies. In twelve essays, the author describes characters and situations that explore some of the more exotic aspects of privacy, isolation, and solitude.

—Laurie Wagner

In conventional, civilized terms they are dirt poor. But poverty is a matter of desires as well as of means. Ned and Mae would be poor if they wanted a 16-cubic-foot white enamel frost-free refrigerator or a ten-cycle washing machine. What they want instead is to spend the afternoon in the sun, kneading their dirty clothes in a metal basin. What they want is to have as few clothes to wash as possible. And so they are not poor. Wood that you chop for fuel is said to warm you twice, first in the splitting, then in the burning. In the same way, Ned and Mae say that they are enriched by their wants.

Ed Sklar trades on marital infidelity and employee theft the way option brokers deal in soy and corn futures. Except in Mr. Sklar's business there are no droughts. Businesses lose \$60 billion a year to employee theft, he tells me. What price adultery? This is not a rhetorical question. Divorce lawyers are paid to ask it, knowing that they will be paid even more if they can show incontrovertible evidence of the affair — a picture of a man in bed with his paramour, say, or, better yet, a moving picture.



### Migrations to Solitude

(The Quest for Privacy in a Crowded World)  
Sue Halpern. Vintage Books, 1992; 212 pp.  
ISBN 0-679-74241-7  
\$10 (\$12 postpaid) from Random House/  
Order Dept., 400 Hahn Road,  
Westminister, MD 21157; 800/733-3000



## The Friendship Letter

In a high-tech world of uptothenanosecond information and super-speed communication, **The Friendship Letter** has a certain soon-to-be-extinct dinosaur feel to it . . . which is precisely part of its warmth and charm. This newsletter, fresh from the heart of Friendship, Maine, looks like it's put together on an old IBM Selectric. It's a lovely and admirable undertaking. —Mark Brady

Here's something that has me baffled: Someone gave us an old refrigerator which we keep in the garage for overflow stuff. The garage has been at 20° F or below for the last six weeks. Even wine left in the garage sometimes freezes. Why do things inside that refrigerator stay at 40°? Is it running backwards? (If it were off, everything would freeze, n'est pas?)

### The Friendship Letter

Michael Cooney, Publisher.  
\$12/year (12 issues). PO Box 278,  
Friendship, ME 04547-0278

In keeping with *The Friendship Letter* tradition of giving you the information you want to know, before you know you want to know it, here's the difference between a vegetable and a fruit: Fruits continue to ripen after you pick them, vegetables do not. (Yes, the tomato is a fruit, though I prefer to think of it as an exceptional vegetable.)

## Ain't Nobody's Business if You Do

Headline: Northern California Man Busted for Smoking Toad Slime. So the man is a psychochemical trailblazer. He also leads students on nature hikes. Oops, no more. And the sheriff snatched his property. But he didn't hurt the toads, you say. He only puffed a bit of their slime. Who cares? The DA, who'll invest \$100,000 in a righteous prosecution that could give the slime smoker fifteen years. A true story.

Pissed? You will be. **Ain't Nobody's Business If You Do** holds a disturbing mirror before us consensual criminals. —Digger

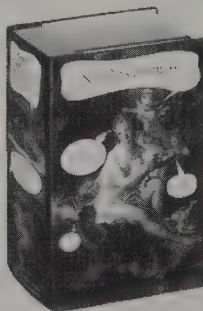
If we let anyone lose his or her freedom without just cause, we have all lost our freedom.

With this thought in mind, here are the most popular consensual crimes: gambling, recreational drug use, religious drug use, prostitution, pornography and obscenity, violations of marriage (adultery, fornication, oral sex, anal sex, bigamy, polygamy, cohabitation), homosexuality, regenerative drug use and unorthodox medical practices ("Quacks!"), unconventional religious practices ("Cults!"), unpopular political views ("Commies!"), transvestism, not using safety devices (such as motorcycle helmets and seat belts), public drunkenness, jay-walking, loitering, and vagrancy (as long as they don't become trespassing or disturbing the peace).

On another front, gays have served in the United States military ever since General

Von Steuben arrived at Valley Forge in February 1778. He was recommended to General Washington by Benjamin Franklin. Von Steuben turned the rag-tag troops into a fighting army by spring. . . . Von Steuben was gay.

The single most effective form of change is one-on-one interaction with the people you come in contact with day-by-day. The next time someone condemns a consensual activity in your presence, for example, you can ask the simple question, "Well, isn't that their own business?" . . . "Shouldn't people be allowed to do with their own person and property whatever they choose as long as they do not physically harm the person or property of another?"



### Ain't Nobody's Business If You Do

(The Absurdity of Consensual Crimes in a Free Society)  
Peter McWilliams. 1993; 815 pp.  
ISBN 0-931580-53-6  
\$11.47 postpaid from Prelude Press,  
8159 Santa Monica Blvd., Los Angeles,  
CA 90046; 213/650-9571

## Their Eyes Were Watching God

Janie's story chronicles a woman's search for the truth about who she is and the development of her voice so she can tell this truth. It's Everywoman's struggle set in the shifting patterns of African-American communal life in Florida in the 1930s. The story pours out — vivid, juicy, rich with metaphor. Standing in the bookstore, I read the first paragraph, and was hooked forever.

—Charlotte Hatch

Ships at a distance have every man's wish on board. For some they come in with the tide. For others they sail forever on the horizon, never out of sight, never landing until the Watcher turns his eyes away in resignation, his dreams mocked to death by Time. That is the life of men.

Now, women forget all those things they don't want to remember, and remember everything they don't want to forget. The dream is the truth. Then they act and do things accordingly.

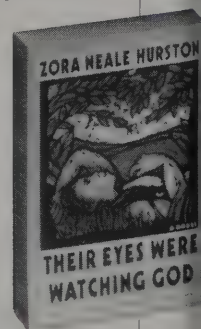
So the beginning of this was a woman and she had come back from burying the dead. Not the dead of sick and ailing with friends at the pillow and the feet. She had come back from the sodden and the bloated; the sudden dead, their eyes flung wide open in judgment.

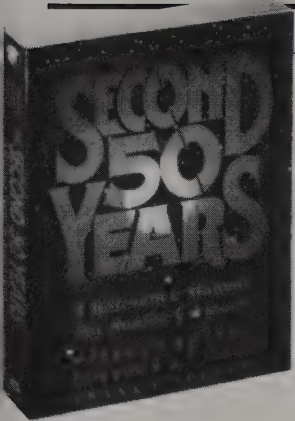
The people all saw her come because it was sundown. The sun was gone, but he had left his footprints in the sky. It was the time for sitting on porches beside the road. It was the time to hear things and talk. These sitters had been tongueless, earless, eyeless conveniences all day long. Mules and other brutes had occupied their skins. But now, the sun and the bossman were gone, so the skins felt powerful and human. They became lords of sounds and lesser things. They passed nations through their mouths. They sat in judgment.

Seeing the woman as she was made them remember the envy they had stored up from other times. So they chewed up the back parts of their minds and swallowed with relish. They made burning statements with questions, and killing tools out of laughs. It was mass cruelty. A mood come alive. Words walking without masters; walking altogether like harmony in a song.

### Their Eyes Were Watching God

Zora Neale Hurston.  
HarperPerennial, 1990;  
286 pp. ISBN 0-06-091650-8  
\$12 (\$14.75 postpaid) from  
HarperCollins Publishers/Direct  
Mail, PO Box 588, Dunmore, PA 18512;  
800/331-3761





## The Second 50 Years

All that mysterious getting-older jive you thought you would never have to contend with is packed into this four-hundred-page whopper of a book that looks and feels like one of our **Whole Earth Catalogs**, and is of similar utility. Diseases, finances, quackery, sudden mate loss, sex, gallbladders, grandparenting, interactions of medicines, stress, travel, nose jobs, diet, depression, and just about everything else is here in sufficient depth and access to resources to be useful. Have a look, you probably-more-than-halfway-through people, you need to know this stuff. Sneer not, young whippersnappers, this is what's coming. —J. (cackle, wheeze) Baldwin

### The Second 50 Years

Walter J. Cheney, William J. Diehm & Frank E. Seeley. Paragon House, 1992; 445 pp. ISBN 1-55778-531-7  
Book: \$16.95 postpaid from Writer's Consortium, 5443 Stage Mtn. Road, Weed, CA 96094; 916/938-3163, fax 916/938-3850  
Book and 2 1/2 hr. video set: \$39.95 postpaid from Georgia Center for Continuing Education, Room 175, University of Georgia, Athens, GA 30602-3603; 800/359-4040

• Marriages run into different challenges upon retirement and can end in divorce. You have heard of the old saying "For better or for worse, but not for lunch." All of a sudden with all that time with one another you come to realize that you have not worked at the relationship. Dividing up friends after a long-term marriage often is as stressful as dividing up property. The most serious consequences of a divorce for women in their later years may be the economic impact. The men usually have

## Coming to Age

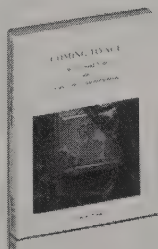
*How welcome and necessary this is! More than an analysis of aging and description of the croning years, this book gives a fresh perspective on the inner events of that period from the 50s to the 70s (not young and not old by today's standards, as we live longer and more productive lives).*

*Focusing on the Demeter-Persephone myth, Jane Prétat guides us to creatively affirm our destiny in this transition to what Jung called "metanoia," the profound change to which the trials of the croning years can lead.*  
—Lois Anderson

• Today in the Western world the human life span is increasing, and as it does, the need grows for a deeper wisdom that can help older persons honor rather than deny the physical and psychological relinquishings that precede a late blooming. The threshing and tempering of such a time can be overwhelming. Not only is our conscious and habitual perception of ourselves, built up over the course of our lives, being sorely tried, but psyche and soma are also being tested in ways that can be extremely painful. We're not sure we like it, but we are in transition whether we like it or not. Our lives are changing. Yet no one tells us how to relate to these changes. We look for answers but find little information. As Jane Wheelwright, an analyst in her eighties,

tells us, older persons may well wonder, "Where are the guidelines for us as individuals? They will find that there are none."

• Such experiences have affirmed my belief that Jung's concept of *metanoia* is just as applicable to late-life transformation as it is to the changes that take place in midlife. Those of us in that transition have an important task ahead of us — to explore and experience the years of our late fifties and sixties in a way that can open our understanding of the trials and triumphs people go through as they come to age. This involves a struggle to recognize the opposites — the good-evil, conscious-unconscious, hope-despair, youth-age — within ourselves, our bodies and our world.



### Coming to Age

(The Croning Years and Late-Life Transformation)  
Jane R. Prétat. Inner City Books, 1994; 143 pp. ISBN 0-919123-63-5  
\$16 (\$18 postpaid) from Book World Services, PO Box 18088, Sarasota, FL 34276

pensions; the women may not. (A whole page of resources and friendly encouragement follows. —JB)

• Short-term memory doesn't necessarily diminish with age; it just takes longer to function. Most people (90%) past the age of 65 think they have some memory impairment. That slowdown is certainly not proof that a brain disease is at work.

## Into the Wind



### Martin's Legs

**Always a show stopper. Martin Lester's parafoil legs seem to kick for more altitude as they fly. Made in England of rip-stop nylon. 2' 8" x 8' x 1' 9". 8" x 10" stuff sack included. Use 100# line.**

#5873 Martin's Legs \$198  
#5874 Natalie's Legs \$198

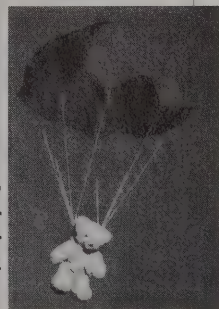
*The best mail-order source for kiteware. The owners and staff are avid fliers and test every available kite that seems worthy. Of those, they only carry what they think is wonderful. They produce a useful catalog each January; it's informative and colorful (kites are best scrutinized in four colors). In addition to kites they carry string, winders, nightlights, a small but well-chosen selection of books, and everything a kitemaker could need for materials.*

*Excellent, friendly service. I recommend them sky-highly. Send a feather into the wind and stay forever young.*  
—Winslow Colwell

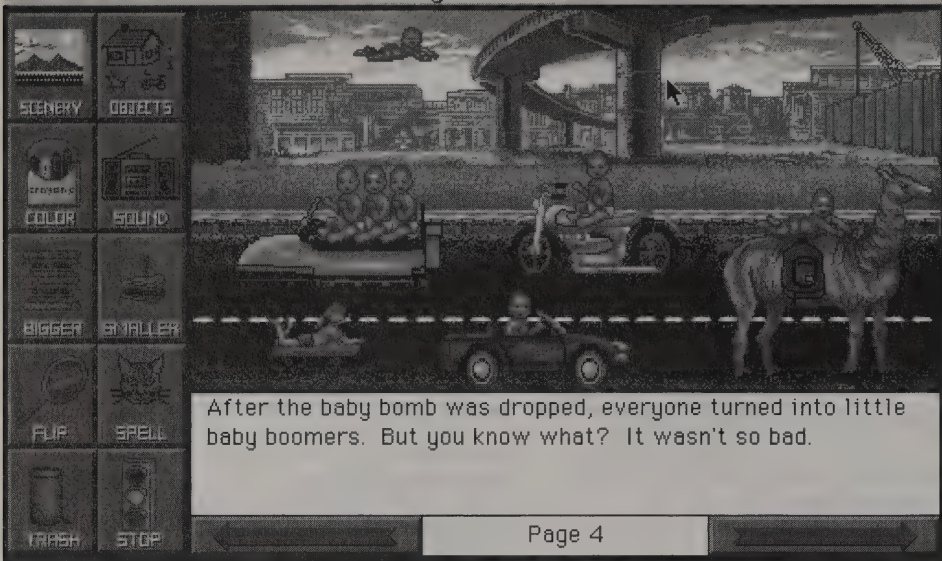
### Into the Wind:

Catalog free.  
1408 Pearl Street,  
Boulder, CO 80302;  
800/541-0314.

#649  
Parachuting ParaBear  
Line Climber  
\$62







After the baby bomb was dropped, everyone turned into little baby boomers. But you know what? It wasn't so bad.

Page 4

### My Own Stories

This program is cool! It allows your imagination to go free. You select a scene (anything from a desert to a shopping mall) and then choose from hundreds of pictures (from doghouses to hot-dog stands) that you can move around, change size, attach sounds to, and make stories with. It's easy enough for younger kids to use and fun enough for even adults to enjoy. If you like to write or illustrate, you will love this program. —Bridget Sumser, Shannon Hottinger, Raymond Sumser

### My Own Stories

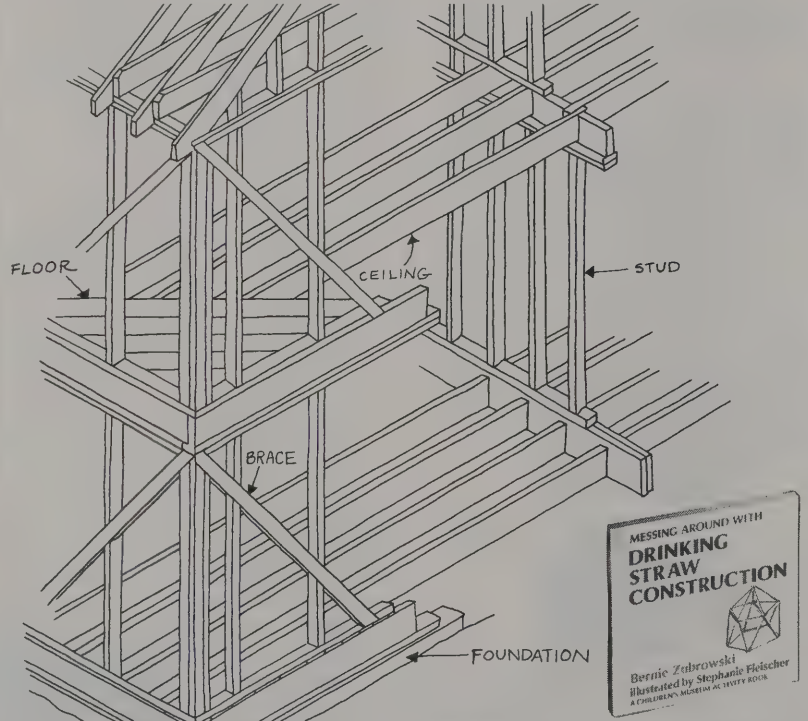
Macintosh version: System 6.0.7 or greater, 1 MB RAM, 3 MB hard disk space; PC version: DOS 5.0 or greater, 1 MB RAM, 4 MB hard disk space. Both require high-density floppy drive. Each \$49.95 (\$53.95 postpaid) from MECC, 6160 Summit Drive, Minneapolis, MN 55430; 800/685-6322

### Drinking Straw Construction

I'm a nine-year-old girl, and I love to experiment with different crafts and construction projects. That's why I like this book. **Messing Around with Drinking Straw Construction** shows how to make model buildings, bridges, towers, and racks out of straws, paper clips, pins, and tape. Some projects are even life-size. This book taught me about what an architect needs to know to keep buildings standing up. I learned a

lot about bridges, too. This book gives you interesting ways to test your models and also good tips to get a strong base. You also have to practice your math skills to build these models.

After you have accomplished the basic straw construction, you can go on to bigger construction with dowels, wooden sticks, and rubber bands. Have fun!  
—Mamie Rheingold



If you are lucky, there might be a house being constructed near you. If not look closely at the diagram. This is an example of how the frames of houses are usually put together.

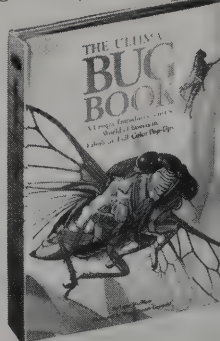
**Messing Around with Drinking Straw Construction**  
Bernie Zubrowski. Children's Museum, 1981; 64 pp. ISBN 0-316-98875-8 \$8.95 (\$11.95 postpaid) from Little, Brown and Co./Order Dept., 200 West Street, Waltham, MA 02154; 800/343-9204

### The Ultimate Bug Book

I usually don't like pop-up books, but this one I really liked!!! **The Ultimate Bug Book** teaches you not only what bugs look like but how they live their lives. It has amazing illustrations and cool 3D close-up construction-paper models on each page! It tells you excellent facts about the various bugs. It also shows you their surrounding habitat.

I think this book was very good and interesting. I was surprised that there are so many details to a bug's life that I didn't know about. In the section on insect societies, there is a model of a beehive that when you pull the tab it shows you the honeycomb and tells you how a baby bee begins its life.

Kids of all ages should read this book because it is very educational in an amusing way.  
—Mamie Rheingold



**The Ultimate Bug Book**  
Luise Wolflein & Wendy Smith-Griswold. Artists & Writers Guild, 1993; 10 pp. ISBN 0-307-17600-2 \$19.95 (\$24.45 postpaid) from Donovan's Toys, 732 Clinton Street, Waukesha, WI 53186; 800/236-7123



## The Human Nature of Birds

This book is jam-packed with fascinating stuff, though I didn't exactly enjoy reading it. Didactic and occasionally messianic, Theodore Barber's prose style is no pleasure; despite a treasure trove of footnotes, I yearned for more meat in his arguments, and I often quarreled with his value system. So why recommend the book? Because a few days after I read it, I realized that what goes through my mind when I look at a bird has been radically changed. —Jill Hannum

The sensory limitations of humans prevent them from perceiving the richness of bird songs. Birds are roughly ten times more proficient than humans in creating and also acoustically separating out a very rapid succession of sounds. . . . A bird may perceive a song that lasts only two seconds as a lengthy and intricate composition. For instance, when played at one-quarter speed, a hermit thrush's two-second song sounds like a human composition that has between forty-five to one hundred notes and twenty-five to fifty pitch changes and approximates a pentatonic scale with all the harmonic intervals.

In Scandinavia hooded crows at times catch fish by using the lines that fishermen leave suspended through holes in the ice of frozen lakes. The bird seizes the line in its beak, walks off with it away from the hole, then walks on top of the line back to the hole (thus preventing it from slipping), and repeats the process carefully until the fish is brought up.

As the humanlike qualities of birds and other animals penetrate deep into the consciousness of a new generation, humanity's philosophy of life will turn around along with human cultural institutions. Science, religion, and philosophy will be fundamentally different.

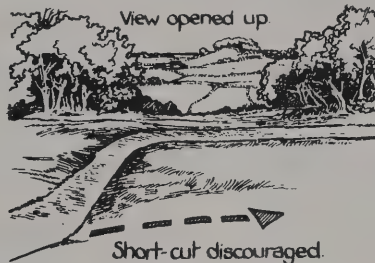


### The Human Nature of Birds

Theodore Xenophon Barber. St. Martin's Press, 1993; 226 pp. ISBN 0-312-09308-X \$19.95 (\$22.95 postpaid) from Publishers Book & Audio, PO Box 070059, Staten Island, NY 10307; 800/288-2131

## Footpaths

Denizens of England, Scotland, and Ireland enjoy a wonderful network of what we'd call trails in the US. The footpaths run all over the landscape, not just in the parks. Some were in use before the Romans arrived. This well-illustrated and comprehensive handbook thus represents centuries of experience in routing, constructing, and maintaining paths. Truly complete, it's detailed right down to the metric size of bridge trusses and the Latin names of recommended trailside plantings. Inspiring, and certainly worth the rather stiff price, it's how to do trails right. In English, but easily translated into 'Murrican. —J. Baldwin



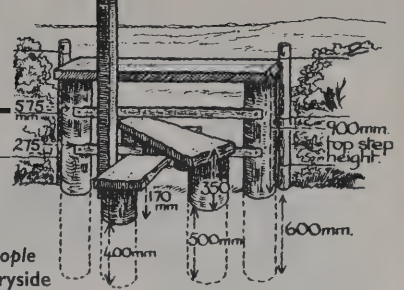
Targets, if skillfully placed, can draw the eye and attract the walker along a certain route. Views are the most reliable target, but an information board or seat may also serve this purpose.

## Natural High

Ingest this slim collection of John Wiley's columns from *Smithsonian* just one or two bites at a time. Then settle in to digest his deceptively simple essays. Wiley is an urbanite who sees the power of nature everywhere — on the Capitol Mall, at the Esso Club, in an x-ray of his heart — and urges his readers to learn to see it too. An intimate writer who encourages even the smallest steps toward helping the planet, Wiley is an optimist — albeit a cautious one. A fine book for folks who need a reminder to look up from the sidewalk. —Jill Hannum

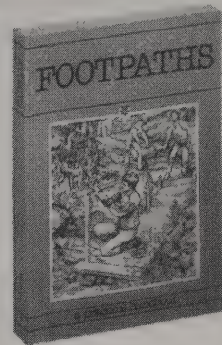
The question that comes to mind is whether we have so impoverished the natural world that more and more wild creatures are learning that they must approach humans to find what they need. (Those panhandling herons in Florida raise young more successfully than their counterparts in the wild.) Perhaps our cities are becoming to wildlife in general what the Yellowstone garbage dumps became for bears. Whatever is happening, it behooves us city dwellers to keep our eyes open.

I like dealing in the very small. I once read



### Stile for Disabled People The Countryside

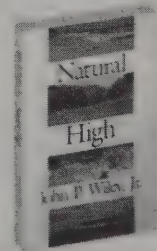
Commission recommend the following design for disabled people (Countryside Commission, 1981, Advisory Series No 15). The steps are low and wide, and the top step is wide enough to allow a person to sit on it and swing his legs over.



### Footpaths

Elizabeth Agate. British Trust for Conservation Volunteers, 1983; 192 pp. ISBN 0-9501643-9-9 \$33 (\$37 postpaid) from AgAccess, PO Box 2008, Davis, CA 95617; 916/756-7177, fax 916/756-7188

somewhere that reducing the weight of a car by 400 pounds would improve its fuel economy by one mile per gallon. I translated that to an extra 13.2 feet per gallon for every pound of hamburger wrappers and soda cans I rake out of the car on Saturday mornings. As a pedestrian in a crosswalk I often insist that a car make its right turn before I cross: Not making the car wait with its engine running conserves fuel, reduces air pollution, and helps out with the country's balance of payments. I'm not above thinking that the argon atom I just inhaled was once exhaled by Cicero at the Forum in Rome.



### Natural High

John P. Wiley. 1993; 121 pp. ISBN 0-87451-624-2 \$12.95 (\$16.45 postpaid) from University Press of New England, 23 S. Main Street, Hanover, NH 03755; 800/421-1561



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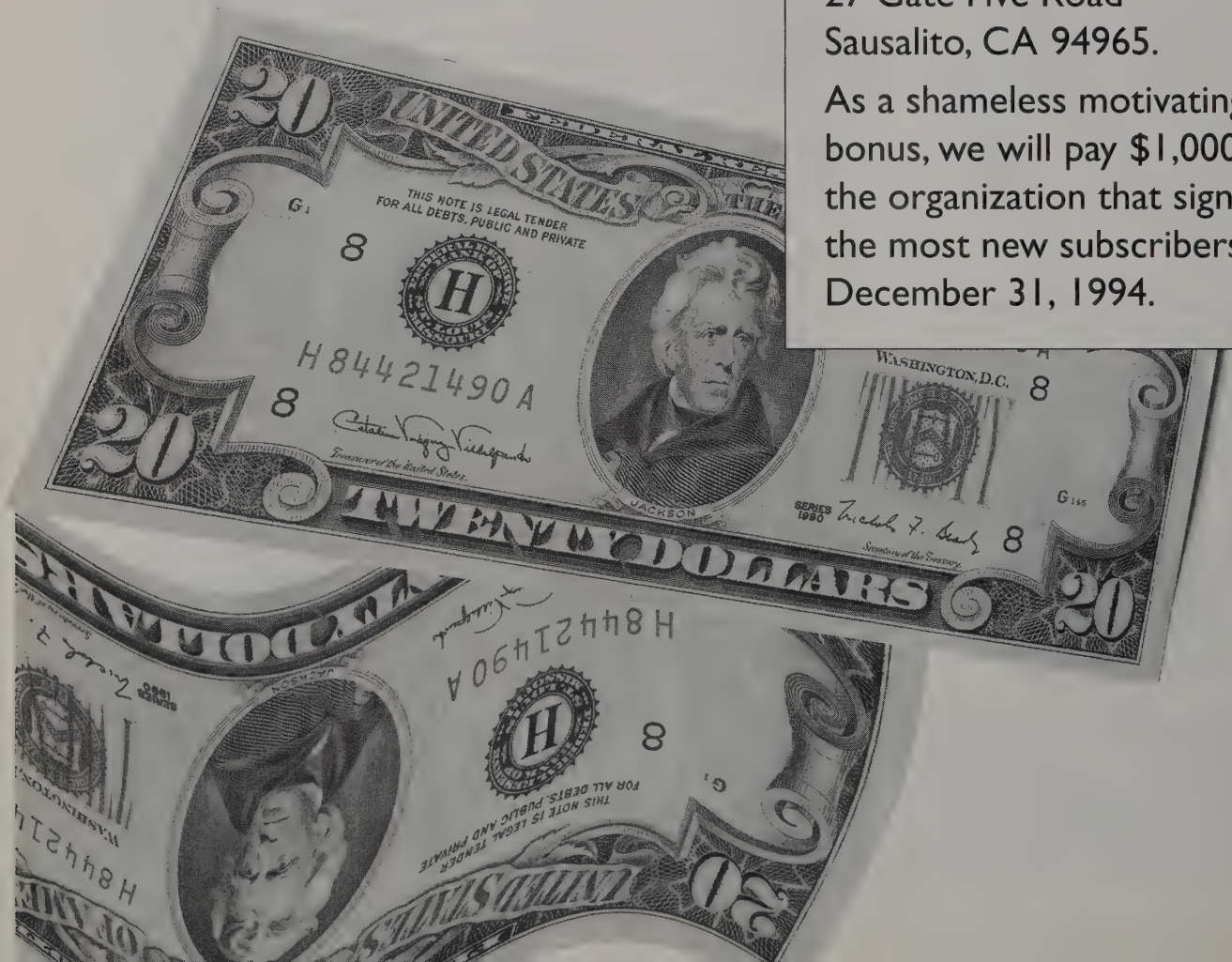
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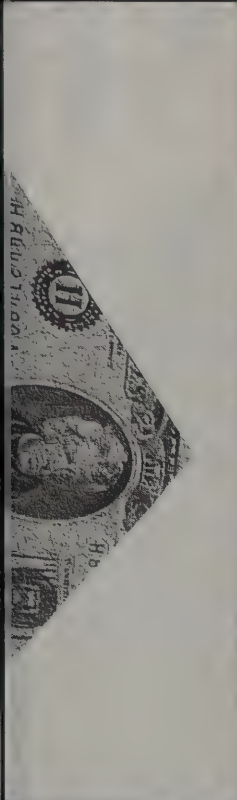
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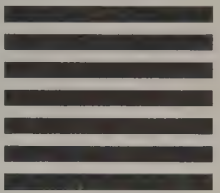
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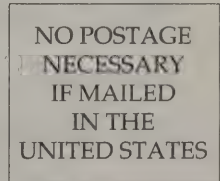
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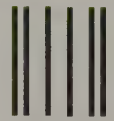
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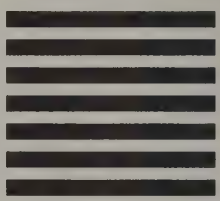


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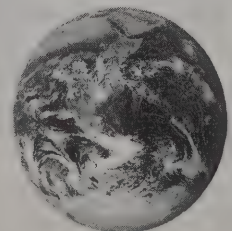
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## Mondo Barbie

The editors of *Mondo Barbie* have collected the best Barbie stories and the best Barbie poems for you to launch into a new literary understanding of your childhood "amusement." There are few toys from childhood so crammed with import as a Barbie. How much time did you spend playing with a Barbie? How much time fantasizing about her? What effect did she have on you as you grew up? Once we've outgrown them we don't spend much time thinking over those formative toys, and maybe we'd better start. —Caius van Nouhuys



### Mondo Barbie

Lucinda Ebersole & Richard Peabody.  
St. Martin's Press, 1993; 285 pp.  
ISBN 0-312-08848-5  
\$12.95 (\$16.45 postpaid) from Publishers Book & Audio,  
PO Box 070059, Staten Island, NY 10307; 800/288-2131

• They decide to exchange heads.  
Barbie squeezes the small opening under her chin  
over Ken's bulging neck socket. His wide jaw line jostles  
like one of those nodding novelty dogs  
destined to gaze from the back windows of cars.  
The two dolls chase each other around the orange Country Camper  
unsure what they'll do when they're within touching distance.  
Ken wants to feel Barbie's toes between his lips,  
take off one of her legs and force his whole arm inside her.  
With only the vaguest suggestion of genitals,  
all the alluring qualities they possess as fashion dolls,  
up until now have done neither of them much good.

## Fatal Moments

*It's a beautiful day, and you're scudding along in your merry Oldsmobile when suddenly a figure darts out from between parked cars to become your hood ornament — and then a statistic. You live on, but not necessarily happily. Now what?*

*Americans have difficulty dealing with death under any circumstances, and an accidental one compounds the difficulty. Yet accidents march along just behind cancer and heart disease as grim reapers of note; one hundred thousand Americans a year leave life this way. From shock and preoccupation to healing and aftermath, the existential thorn of accidentally ending another's life is here explored through the experiences of two hundred people.* —R. Leveque

### A List of Don'ts

- Don't make jokes about the accident.
- Don't stare at the person.
- Don't press for morbid details.
- Don't encourage the accidental killer to blame others. This just leads to more guilt.
- Don't doubt the person's innocence. You may be able to help the person investigate what he sees as his responsibility, but he does not need another judge. Your condemnation increases his guilt, which hinders

coping. Silent judgment is the worst.

- Don't say you feel sorry. The accidental killer needs respect, not pity.
- Don't minimize the pain by comparing it with other pain.
- Don't visit because you think it is expected.
- Don't assume that someone peripherally involved will not feel a great deal of responsibility for an accidental death.

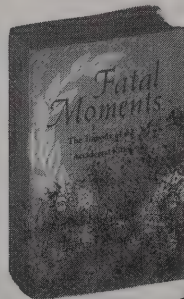
• The worst thing was when two people came to visit me representing the women's group in my church. They did not come when the accident occurred. They came several days later and were sort of very

official — no feeling — and made some dumb remarks about how they had almost gone to sleep when driving and had driven late at night, and so on. I had not been driving late at night. In fact, some years ago, because of other accidents that had happened to friends, I had vowed that I would never drive too late.

I think that what I learned from this is that if you really have a feeling — empathy, love, or whatever — for a person, go and help. If you are doing this out of a sense of duty, just stay away.

### Fatal Moments

(The Tragedy of the Accidental Killer)  
Gwendolyn Gilliam & Barbara Chesser.  
Lexington Books, 1991; 416 pp.  
ISBN 0-669-21859-6  
\$19.95 postpaid from Macmillan Publishing Co., 100 Front Street, Riverside,  
NJ 08075-7500;  
800/257-5755



*Reading this preaching is like visiting a church on another planet. Jesus and "the beloved disciple" notwithstanding, being queer, Christian and proud is pretty startling. The Rev. Robert Williams, ordained under the bishop who theorized the Apostle Paul was gay, is worth reading especially if you think you already know what queers and/or Christians are all about.* —Elise Matthesen

### Just As I Am

(A Practical Guide to Being OUT, Proud and Christian)  
Robert Williams. HarperPerennial, 1992;  
310 pp. ISBN 0-06-097555-5  
\$11 (\$13.75 postpaid) from HarperCollins  
Publishers/Direct Mail, PO Box 588,  
Dunmore, PA 18512; 800/331-3761

• Some of the Christian writers do begin to equate Sodom with sexual sin, but the Hebrew writers did not. For instance, Ezekiel 16:49 says, "Behold, this was the guilt of your sister Sodom: she and her daughters had pride, surfeit of food, and prosperous ease, but did not aid the poor and needy." Therefore, if you want to be really "biblical" about it, you could properly call Donald Trump and George Bush "sodomites."

## Just As I Am

At the Southern Baptist college I attended it became popular for some of the more pious students to approach a member of the opposite sex (approaching a member of the same sex would get you expelled!) and say, "The Lord has laid it on my heart that you and I should be dating." Well, fine, except what if the Lord laid it on my heart that you're a creep?

ECONOMISTS MAKE THEIR PREDICTIONS BY STUDYING ARCAIC STATISTICS ON COMPUTER SCREENS--MUCH LIKE SOOTHSAIERS ATTEMPTING TO DIVINE THE FUTURE FROM PIG ENTRAILS--AND WITH ABOUT AS MUCH ACCURACY...

THIS TIME I'M CERTAIN--THE RECOVERY'S GOING TO BEGIN ANY DAY NOW...

...UNLESS IT DOESN'T...



CALL US CYNICS, BUT WE'RE NOT SURE IT WILL BE THAT EASY... PARTICULARLY CONSIDERING THAT MODERN TECHNOLOGY, CONTRARY TO POPULAR BELIEF, MAY ACTUALLY BE ELIMINATING MORE JOBS THAN IT IS CREATING--AS EXEMPLIFIED BY THE 47,000 POSTAL WORKERS ABOUT TO BE REPLACED BY COMPUTERS...

MAYBE WE CAN RETRAIN THEM TO BE ECONOMISTS...

ULP!



THE U.S. ECONOMY IS UNDERGOING FUNDAMENTAL UPHEAVALS... WORKERS ARE BEING LAID OFF IN DROVES, MANUFACTURING JOBS ARE DISAPPEARING OVERSEAS, AND THE SINGLE LARGEST EMPLOYER IN THIS COUNTRY IS A TEMP AGENCY... BUT DON'T WORRY--THE EXPERTS HAVE A SOLUTION...

YES--WE'LL SIMPLY RETRAIN EVERYONE!

...IN SOME VAGUE AND UNSPECIFIED MANNER...



BASICALLY, THERE JUST MAY NOT BE ENOUGH JOBS TO GO AROUND ANYMORE... BUT WE FEEL CONFIDENT THAT TECHNOLOGY WILL PROVIDE SOME SORT OF SOLUTION...

HEY--THIS IS GREAT! I'M SITTING AT A DESK IN AN OFFICE!

I'M CHATTING WITH MY COWORKERS BY THE WATER COOLER!

I'M OPENING MY VIRTUAL PAYCHECK!



## The Future of Ritual

More than anything else, *The Future of Ritual* is a meditation on the transformative nature of performance. Even though the effects are sometimes temporary (Mardi Gras), sometimes secret (ritual), sometimes turned back (Tiananmen Square), they always bespeak the human capacity to cross the boundary between virtual and actual. —Jennifer Cool

**The Future of Ritual**  
(Writings on Culture and Performance)  
Richard Schechner.  
1993; 296 pp.  
ISBN 0-415-04689-0  
\$27.50 (\$30 postpaid) from Routledge,  
Chapman and Hall/Order Dept., 29 W.  
35th Street, New York, NY 10001-2291;  
212/244-6412



### West: Positivist

Creation is finishable work: "On the 7th day God finished the work. . . . And God blessed the 7th day and declared it holy because on it God ceased from all the work of creation."

There is a hierarchy of reality or truth.

### Therefore playing is:

Deprivileged and low status.

With art and religion, not serious or real.

Best when nonviolent, or when violence is pretended, limited, or tightly framed.

Female and infantile, an activity of the powerless.

Loosened gender roles.

Represses the erotic or represents it pornographically.

Framed off as not really real.

Metacommunication declaring "now I am playing" or "now I am not playing."

Temporary.

### India: Maya—lila

Creation is never finishable. Cycles of creation and destruction. Continuous creation.

Multiple realities. If there is an ultimate reality, it is *neti*.

Privileged, the divine process of creating.

With art and religion, serious, real, and often fun.

Creative-destructive: Siva's *tandava* dance, the violence of Krishna in the *Bhagavad Gita*.

Female and male, the activity of gods, of the most powerful.

Transformative gender roles.

Celebrates the erotic, representing it ecstatically.

Multiple realities transformable into each other.

Intentional blurring of playing — not playing boundary.

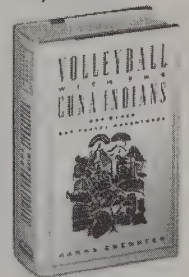
Permanent.

## Volleyball with the Cuna Indians

In this eclectic marriage of travel writing, gay history and personal biography, veteran tour guide Hanns Ebensten offers wry commentary about his bizarre and offbeat adventures. We travel along on the first gay trip to the Galapagos — a slight fiasco — and stay in a youth hostel with 98 Italian motorcycle cops. Like the most successful travel experiences, the book is immediate, informative, and slightly erotic. —Louise Rafkin

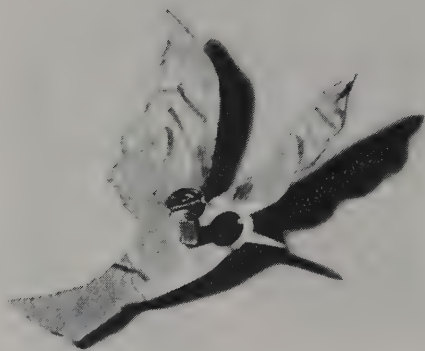
As we assembled on the jetty by the airstrip to embark for the crossing to the island, we noticed that many of the canoes had large hand-lettered banners with words in the Cuna language. The illiterate Cuna boatmen could not tell us what the banners said and did not seem to understand their purpose; they welcomed us as cheerfully as always and laughed and joked and stowed our luggage and set off with us. It was only when we reached the Isla de Oro that Roy explained that the banners, which we had assumed to bear expressions of welcome, said something to the effect of "PERVERTS GO HOME!" and had been lettered by the Baptist missionaries in Aligandi, who had been told about the nature of our groups.

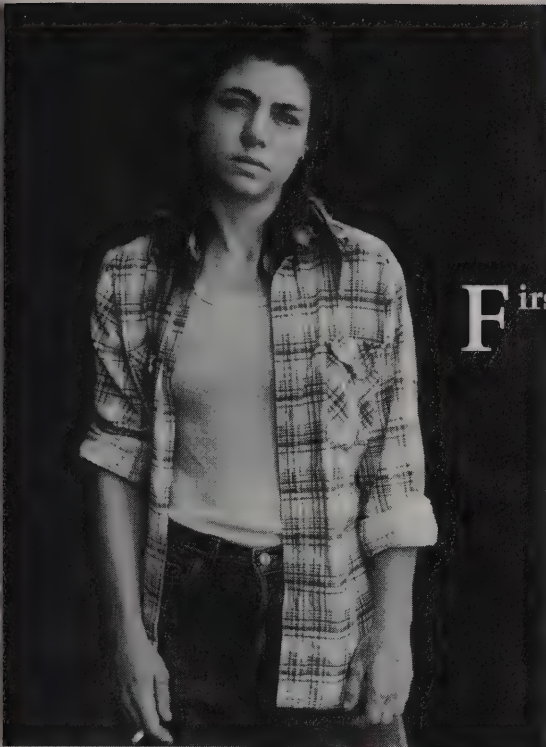
Men vastly outnumber women in the streets, on the buses and the ferries, and on the bridges of Istanbul. Women stay home, attending to children and household chores. After dark, not a woman is to be seen; the cafés and sidewalk restaurants are crowded with men drinking coffee and *raki*, eating nuts, *simit* rings, the tasty appetizers called *mezes*, and rich cakes; and there is a lot of physical contact among them. They hold hands, they put their arms around one another's shoulders, place hands on one another's thighs. Foreigners who say that this means nothing are wrong: it means that, certain of their masculinity, the Turkish men can show that they are fond of one another, that they feel easy in one another's company, and, when deprived of a female partner, are perfectly agreeable to enjoy the pleasures of sex with one another and with any male visitor who is likewise inclined.



**Volleyball with the Cuna Indians**  
(And Other Gay Travel Adventures)  
Hanns Ebensten. Viking, 1993; 335 pp.  
ISBN 0-670-84993-6  
\$22 (\$24 postpaid) from Penguin USA/  
Consumer Sales, 120 Woodbine Street,  
Bergenfield, NJ 07621; 800/253-6476







## First they're people, and then they're homeless.

Homelessness is a phased downward spiral. First you lose your housing. Then you wear out your welcome. Then you go to the shelter. Then you end up on the streets. Seventy percent of the homeless are invisible because they haven't hit the streets yet.

The circumstances are as unique as the number of people involved. But the problem has some solutions in the disciplines of nomadics. —JS

Cathy Stevens, 36 San Francisco, CA. —Homeless

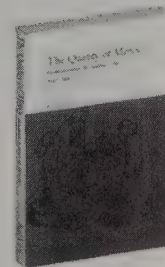
### The Quality of Mercy

The quality of mercy is  
not strain'd —  
It droppeth as the gentle  
rain from heaven  
Upon the place beneath:  
It is twice blest, —  
It blesseth him that gives,  
and him that takes.  
—Portia, in *Merchant of Venice*

*Can ordinary citizens make a difference? This is the story of some who did. The project started small and faced the opposition of the mayor's office, other citizen's groups, and various bureaucratic agencies, some of whom were supposed to be helping the homeless themselves.*

*The Quality of Mercy contains lessons for us all: in working together toward a common goal, in perseverance in the face of opposition, in reaching out to involve other groups in the community, in making mistakes and learning from them, in being human. —Mollie Rights*

■ We had an annual Thanksgiving Dinner for the homeless at the Presbyterian Church on Mission and Highland, with turkeys galore. We found that when you learn someone's name, they are no longer 'homeless'; they are a person; they have not disappeared, or, if they have, they reappear, just like that; they are Tom or Jean or Bill or Charlotte. It was as simple as



### The Quality of Mercy

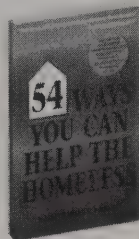
(Homelessness in Santa Cruz)  
Paul Lee. Platonic  
Academy Press,  
1992 141 pp.  
ISBN 0-937011-50-9  
\$7.95 (\$8.95 postpaid)  
from Dakota Books,  
PO Box 1551,  
Santa Cruz, CA 95061;  
408/464-9636

that; common human decency at work. Both ways. And when you sat down to a meal with them, then they were as good as family.

### 54 Ways You Can Help the Homeless

*Did you ever pass a homeless person on the street and feel guilty, angry and helpless all at the same time? You should do something, but what? Your life is so busy, what do you have time for? Rabbi Charles Kroloff offers us fifty-four suggestions ranging from handing out fast-food gift certificates to volunteering our special talents, to hiring the homeless. This is such a friendly, practical little book, I urge you to read it. It's likely that one of the ideas will feel just right for you.*

—MR



### 54 Ways You Can Help the Homeless

Charles A. Kroloff. 1993;  
96 pp. ISBN 0-88363-888-6  
\$2.95 postpaid from Hugh Lauter  
Levin Associates, 2507 Post Road,  
Southport, CO, 06490; 203/254-7733

● Phyllis Cohen still remembers the homeless woman she encountered at New York's Penn Station. She gave the woman \$1 and asked her which was the nearest exit to Macy's.

"Her face lit up like a corpse come to life," Ms. Cohen recalls. "She gave me detailed directions and walked with me to be sure I got it right, talking animatedly all the way. It seemed as though by asking something of her, by assuming she had something to give, I had validated, or reinstated, her personhood.

"I think of her often, of her reacting as though I'd given her a great gift."



---

## Tell Them Who I Am

When Elliot Liebow discovered he had cancer, he quit his job as an anthropologist with the National Institute of Mental Health and became a volunteer at a soup kitchen and at several shelters for women. For something to do, he began making notes about the women he met, how they became homeless, and what their lives were like in and out of the shelters. Five years later he was still alive and had all these stories. **Tell Them Who I Am** is the wonderful, fascinating, and deeply moving result. —MR

• Betty was a self-designated protector of Flora, who spent much of her waking life asleep or depressed, with her head cradled in her arms. Betty not only helped her wash, eat, and change clothes but occasionally stroked her hair or touched her face to comfort her and bring her back in touch with the world. And once, when Flora, her remaining mental energies spent, neglected to return to the shelter and spent three days on a park bench instead, not eating or drinking and defecating in her clothing, it was Betty who found her and half-carried her, with Phyllis's help and mine, back to a shelter where Betty washed her and found her some fresh clothing.



### Tell Them Who I Am

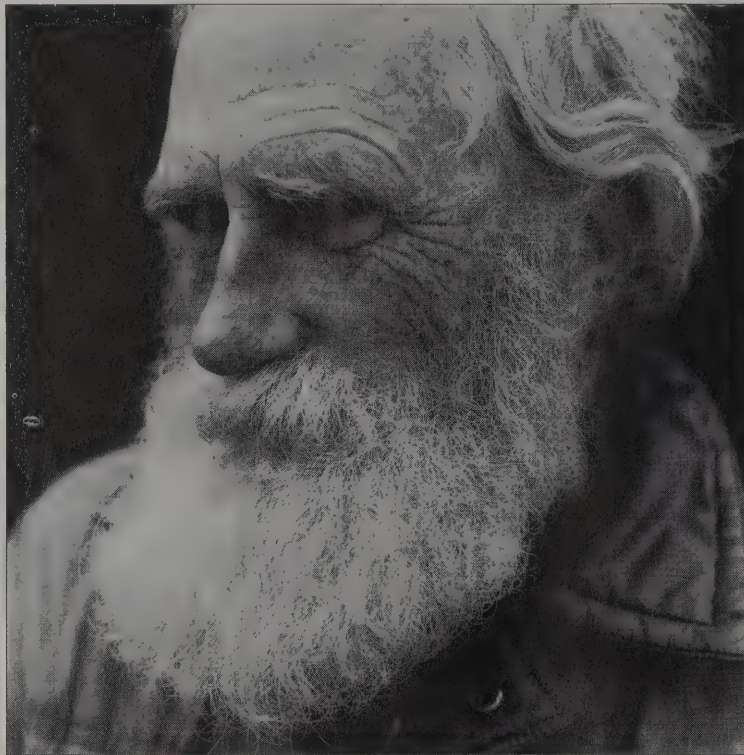
(The Lives of Homeless Women)  
Elliot Liebow. Free Press, 1993;  
350 pp. ISBN 0-02-919095-9  
\$24.95 (\$27.45 postpaid) from Macmillan  
Publishing Co., 100 Front Street,  
Riverside, NJ 08075-7500; 800/257-5755

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## Moving to Nowhere

Children who are homeless see the world differently. Their world is not safe. Their parents aren't protecting them from pain and hardship. Their lives are full of chaos and disruption. There is no security. **Moving to Nowhere** lets them tell you how they feel.

Mary Walsh, a psychologist who has worked with poor children and homeless families for many years, intersperses the children's stories with her commentary and references to current research. —MR



Bernie O'Reilly, 61

I go to the soup kitchen. I tried four times for General Assistance and got nailed with technicalities every time. I should have a pension. They ran off with our one pension, the union, and so they started another one, and I never got enough accumulated in it; but I should get something when I'm sixty-five. I'm waiting for social security now. —Homeless

---

## Homeless

If you find it hard to look at homeless people, you can look at this book and listen to them here. Howard Schatz sat down on the street with them, listened to their stories, and asked to take their photographs. When someone came by whose picture he had taken, he gave them a copy. Proceeds and royalties go to Comic Relief for the National Health Care for the Homeless. —MR

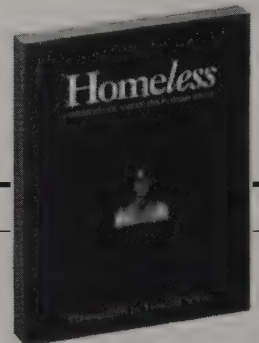
• I like it here because it's got a playroom and it's got crayons and it's got beds. Before I didn't have a real bed. We used to live at my grandmother's house and we didn't have enough money for beds yet and we used to sleep on these little chair beds like you see at the store. Well, I'd sleep on one, Bethany would sleep on the couch, and my mom would sleep on another couch. We used to sleep on things that represent beds. I like it here. You get a couple of blankets here! Like you get a quilt, and then you get one blanket. Then you get a couple sheets. We didn't have that where we lived before. We used to

have a sheet over us. That's it. I used to wrap it all around me. I was cold.



### Moving to Nowhere

Mary E. Walsh.  
Auburn House,  
1992; 192 pp.  
ISBN 0-86569-202-5  
\$14.95 (\$18.45  
postpaid) from  
Greenwood  
Publishing Group,  
88 Post Road  
West, Box 5007,  
Westport, CT  
06881;  
800/225-5800



### Homeless

(Portraits of Americans in Hard Times)  
Howard Schatz. 1993;  
141 pp. ISBN 0-8118-0512-3  
\$22.95 (\$26.45 postpaid) from Chronicle  
Books/Order Dept., 275 5th Street,  
San Francisco, CA 94103; 800/722-6657

## Fly Away Home • Erik is Homeless

Here are two good books for kids: *Fly Away Home* is about a homeless child who lives in an airport with his father. *Erik is Homeless* describes life in a shelter and how Erik feels about and deals with being homeless. —MR

• Mr. Slocum and Mr. Vail were caught last night. "Ten green bottles, hanging on the wall," they sang. They were as loud as two moose bellowing. Dad says they broke the first rule of living here. Don't get noticed. —*Fly Away Home*



### Fly Away Home

Eve Bunting. Clarion Books, 1991; 32 pp. ISBN 0-395-66415-2 \$5.95 (\$7.45 postpaid) from Houghton Mifflin Co./Mail Order Dept., Wayside Road, Burlington, MA 01803; 800/225-3362



Erik and other homeless children enjoy a pizza break during a field trip.



Sometimes Lydia walks with Erik to his school. She worries about the dangerous neighborhood.



### Erik Is Homeless

Keith Elliot Greenberg. 1992; 40 pp. ISBN 0-8225-2551-8 \$17.50 postpaid from Lerner Publications Co., 241 First Avenue North, Minneapolis, MN 55401; 800/328-4929

• Erik has been taunted on his way home from school by a group of neighborhood kids who hang out near the Prospect. These kids tease Erik and his friends about their hand-me-down clothes and about being homeless.

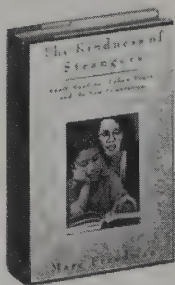
"A homeless kid is just a kid like anyone else," Erik complains. "People who make fun of us should learn their manners. What if they become homeless one day? They won't like it if we make fun of them."

—*Erik Is Homeless*



## The Kindness of Strangers

Marc Freedman feels that mentoring is vitally needed to help kids and describes how rewarding it can be. It can also be tough. Some kids reach out and grow and bloom, others withdraw or lash back, testing the relationship for all its worth. But if you like being challenged and have stick-to-itiveness, mentoring might be for you. This book can help you decide. —MR



### The Kindness of Strangers

(Adult Mentors, Urban Youth, and the New Voluntarism)

Marc Freedman. 1993; 162 pp.

ISBN 1-55542-557-7

\$24.95 (\$28.45 postpaid) from Jossey-Bass Publishers, 350 Sansome Street, San Francisco, CA 94104; 415/433-1767

■ In the tenth grade, Sean contemplated dropping out. He stopped going to school, but after several weeks of failing to find work he unenthusiastically drifted back to McKinley. His attendance sporadic, his grades were a mix of incompletes and failures, punctuated by an occasional B or C.

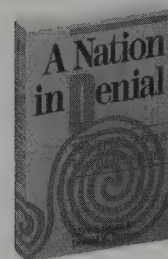
All this time, however, Sean was actively reaching for help. At school he latched on to a sympathetic guidance counselor, Ruth Taylor; "I was always in her office, all the time, reaching out, looking for someone to be in my corner." Taylor liked Sean and saw potential in him. She was justified. He would soon score the highest PSAT scores at McKinley — despite poor attendance and grades, homelessness, and poverty — and qualify for National Merit Scholarship consideration.

Taylor wanted to help Sean but with a caseload in the hundreds, realized she couldn't provide the kind of individual attention and support he was seeking. When the counselor heard about the Mentors, Inc. program she made sure Sean applied and shepherded him through the process.

In a few weeks, Sean was matched with a mentor, John Hogan . . . Initially, John tried to find some common ground with Sean by recounting his own background: growing

up poor, one of eleven children. All Sean could think about was how elated he was just to have "someone to sit down and listen to me — to give me a chance to talk." While adults were frequently coming in and out of Sean's life (recently his godparents had started visiting), they tended to "preach" to him. With John there was no preaching. Sean recalls that from the very beginning, "we would go to a restaurant and sit there and just talk. I was real down on myself, dealing with a whole lot of problems I shouldn't have been dealing with, which he helped me get off my back."

## A Nation in Denial



### A Nation in Denial

Alice S. Baum & Donald W. Burnes. 1993; 247 pp. ISBN 0-8133-8245-9

\$16.95 (\$20.95 postpaid) from Westview Press, 5500 Central Avenue, Boulder, CO 80301; 303/444-3541

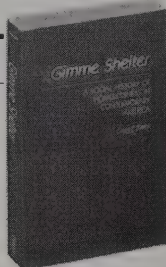
Many homeless people suffer from alcohol and drug addiction, mental illness or impairment. Most have lost the network of supportive family and friends that keeps other poor people from becoming homeless. By not getting them help for the underlying problems, we perpetuate the cycle of homelessness.

Alice Baum and Donald Burnes detail the problems, discuss what works and what doesn't, and highlight some of the successful programs around the country. Government officials at all levels are paying attention to the ideas in this book. —MR

## Gimme Shelter

A history of homelessness, its political economy, and our social responses to it, *Gimme Shelter* chronicles the rise and fall of various programs, and refers to some of today's most successful ones. Gregg Barak is professor and chair of the Department of Criminology and Criminal Justice at Alabama State University. —MR

■ Since settlers first came to the New World there have been homeless people here. Homelessness is certainly not new to the American experience, but a fundamental distinction can be made between those people in colonial times, the homeless people from the turn of the century, including the swelled population of the homeless during the Great Depression, those homeless persons of the decades since the 1950s, and those of the 1990s. To put it simply, while their histories and experiences share much in common, their social production is different. The homelessness characteristic of the period 1880-1980 was typically the product of a depressed, industrial economy struggling with the underproduction and experiencing a labor surplus. On the other hand,



### Gimme Shelter

(A Social History of Homelessness in Contemporary America)

Gregg Barak. Praeger, 1992;

212 pp. ISBN 0-275-94401-8

\$14.95 (\$18.45 postpaid) from Greenwood Publishing Group, 88 Post Road West, PO Box 5007, Westport, CT 06881; 800/225-5800

homelessness as characteristic of the new poverty that emerged in the 1980s is a product of the transition from an industrial-based capitalist economy to a postindustrial capitalist service economy within the context of internationally developing global relations. The problems of the contemporary U.S. economy as expressed in the crises of poverty and homelessness involve underconsumption and a surplus of technically unskilled workers. Hence, since the ultimate sources of homelessness dif-

fer, the appropriate solutions to poverty and shelter deprivation should vary from place to place and time to time as the nature of the vagrancy condition changes in relation to the developing political economies, locally and globally. In a nutshell, the problem with the current response to the new vagrancy is that the policy assumptions are still grounded in the political economy of the old vagrancy.

# THE 13 STEPS TO RECOVERY FROM

## HOME- LESS- NESS

A Self-Help Guide  
for the Homeless or  
Soon-to-Be Homeless

BY RICK NAMEY

**Step 1** — Admit you are homeless.

The stereotypes most of us hold of the homeless are erroneous. According to the U.S. Department of Housing and Urban Development, street people sleeping over grates or under bridges, as well as alcoholics and the drug dependent account for only about 15 percent of the homeless.

For most, homelessness begins with denial. The path from a safe home to the street may take from three to five years. It often begins with “sofa-surfing” — moving from one friend’s place to another until the welcome mat wears out. Or, it may begin with sleeping on the seat of a car. Neither a friend’s couch nor a car are a home. Admitting that you have a problem allows you to deal with it better and faster. As with any malady, effective

cures involve early treatment. The day you get evicted you should instantly accept the idea that you are homeless. Take firm action immediately. Apply for every kind of aid available. Don’t let your pride or your politics delay you from getting help.

**Step 2** — Believe that it’s only temporary and that there is a way back.

Don’t fall into the trap of feeling sorry for yourself or believing that you are a loser. You are a good person who has had a bad break and you will get over it.

**Step 3** — Lose the past.

Stop dwelling on what you’ve lost. Don’t mourn. Don’t constantly wish that you were back where you were. Concentrate on what you want and how to get it.

**Step 4** — Develop attainable expectations.

You may not be able to get what you had, but if you set realistic goals, you can probably get more than you have.

**Step 5** — Visualize yourself succeeding at a job that’s available.

Find out who’s hiring for a job that you can do and where, then get there as soon as possible. If there are simply no jobs where you are, leave.

**Step 6** — Chart a path.

Determine a step-by-step plan that will take you out of the streets. Don’t try to get back to where you were; move ahead to where you are going.

**Step 7** — Find out about every program.

Go to a church, agency or shelter. Ask for a list of programs and go shopping.

**Step 8** — Tear out the “Government” listings in the phone book.

Take the pages from an upscale mall or residential area, rather than ripping them out of a book in the area where you are home-

less. Then contact every agency that might have help available. Ask every question you can think of: housing, food stamps, welfare, child care. They may not volunteer information unless you ask for it.

**Step 9** — Reconnect yourself.

Get a post office box so that you have an address. Many copy centers also have mail boxes, which give you a real street address instead of a box number. They’ll even let you use their fax number; you pay only for faxes you receive. Some areas actually offer voice mail for the homeless at little or no charge; check with the phone company.

**Step 10** — Save your money.

You’re going to need first and last month’s rent plus utilities to get a place to live. Everything you can do for free, do it. Use the free shelters. Eat free at the soup kitchens. Save at least 20 percent of every dollar you get your hands on. Open a bank account; it’s the only safe way to save. It’s also an important connection back to society. Most banks will open a savings account with as little as five dollars.

**Step 11** — Establish a routine. Brush your teeth every day. Try to get up and go to sleep at the same time. A daily routine will help you to stay rested and alert. Most important, it can help you to retain your sanity.

**Step 12** — Get a calendar.

Make and keep appointments. Set goals. Be aware of the passage of time; it’s another connection back to the world you want to rejoin.

**Step 13** — Don’t give up.

As trite and hackneyed as it may sound, it’s an absolute truth. If you keep the faith and keep trying you can succeed. No matter how many times you have a setback, don’t stop trying. Just make it.



## Driza-Bone Rainwear

There's a fair distance between stations in outback Australia. Rain gear's gotta double as swag (bedroll), shelter (sun, wind & rain), ground cloth and friend, and not turn stiff. Made of long-fiber cotton — impregnated with secret-formula oils — Driza-Bone is a practical collection of snaps, straps, vents and hoods that has stood up to the wilds of the land down under for more than a century. She's fair dinkum gear, mate.

In the tucker bag? A tin can for boiling tea water (billy), a bit of flour for damper, sugar, and tobacco to ward off the bloody flies. The stick's a handy snake-whacker. —Digger

### Driza-Bone Rainwear:

\$196 plus shipping. Information from Australia Fair, 700 Sutter Street, San Francisco, CA 94109; 415/441-5319.

## Hopping Freight Trains In America

Still illegal, still dangerous . . . and still fascinating. The techniques and protocols of hopping freight trains have evolved with the times, just like everything else. Here's how the deed is done today. This book is remarkably complete: an education in legend and lore — with proper nomenclature — accompanies the finely honed essential stuff.

Illegal. Dangerous. Tempting. Sigh. —J. Baldwin

There's a special way to throw gear off a moving train. Take hold of it with one hand while keeping firm hold of something on the car with the other. Then lob the gear backward off the car. By "backward" I mean against the direction of travel. . . . If the train is going 13 mph but you lob the gear backwards at 8 it hits the ground at 5.



### Hopping Freight Trains in America

Duffy Littlejohn. 1993; 372 pp. ISBN 0-944627-34-X

\$13.95 (\$15.45 postpaid) from Sand River Press, 1319 14th Street, Los Osos, CA 93402; 805/543-3591



## United States for Business Travelers • Europe for Business Travelers

Not just for business travelers! Anyone going to an urban destination — on a budget above "shoestring" — should find these books useful. Their "business traveler" sensibility is a poised competence rarely seen in the traditionally hapless "tourist" bumbling along well-trodden paths. Empowered and relaxed: why travel any other way?

These books will help you do it right.

—Hacsi Horvath

**GREYHOUND RACING** On the Danube embankment, just outside Budapest there are races from May to September. Inquire at *IBUSZ* for details (see *Tourist Information*).

**HORSE RACING** There are trotting races at the track at *Ugetópálya* (V Kerepesi utca), and flat racing at the *Kincsem Park* track (X, 9 A tirsai utca).

**HORSEBACK RIDING** A very popular pastime in this land of horses. There are schools and stables in and around Budapest, including *Petneházy Riding School* (II, 5 Feketefej utca; phone: 176-5992). Information on riding tours is provided by *IBUSZ* or *Pegazus Tours* (Károlyi Mihály utca; phone: 117-1644).

**JOGGING** Margitsziget (Margaret Island), in the center of the city on the Danube River, is the best place to run. The island is roughly 2 long and half a mile wide, and most of it is given over to sports facilities. Either take a cab to the island's *Thermál* hotel and climb a path from there, or jog over on the pedestrians-only *Margit* (Margaret Bridge). Running is also pleasant along the foothills of the *Budapest* hotel (II, 47-49 Szilágyi Erzsébet fasor). For information on jogging, call the *Futapest Club* (62-64 Váci utca; phone: 118-1



## How to Arrive Looking as Fresh as Stewart Brand

*To justify the formidable cost of the travel tools on this page, you have to use them a lot. If you spend a lot of your time on the road, get the best you can afford. —Stewart Brand*

**BURBERRYS TRENCHCOAT:** \$625-\$995. Burberrys, 225 Post Street, San Francisco, CA 94121; 415/392-2200.

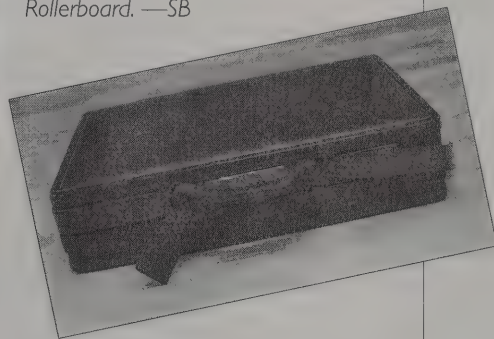
*That it has attracted generations of romantic associations with foreign correspondents, spies, hard-boiled detectives, and dangerous women is not the fault of the trenchcoat. Its highly evolved practicality and its cloak-like sweep and silhouette made that happen.*

*Primarily a raincoat, my Burberrys is light enough to wear open on a warm day; the double-breasted front and sundry fine-tunings of belt, cuffs, and especially the complex collar make it surprisingly warm protection even in an icy wind. It is a coat for all seasons and all social situations, hence the high demand for it among travelers. —SB*

**TRAVELPRO ROLLERBOARD SUITCASE:** \$149.95-\$219.95.

Airline Services Unlimited (ASU), 5725 Paradise Drive, Suite 800, Corte Madera, CA 94925; 800/800-0787.

*The essentials of airline luggage are lightness, rectangularity, carry-on dimensions, and wheels. The finest combination of these is still in Travelpro's 22-inch Rollerboard. The exterior pocket forgives you for buying extra books on the road by cleverly expanding. Good travel discipline: take only what fits in a Rollerboard. —SB*

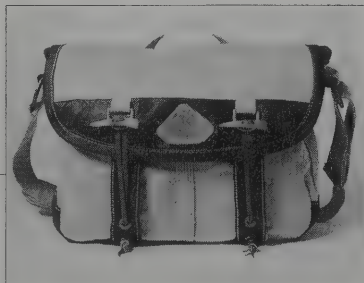


**TERRAPAX BRIEFCASE:** \$200 plus shipping. TerraPax, 2145 Park Avenue, Suite 4, Chico, CA 95928; 800/308-3772.

*TerraPax would like you to buy their briefcase because it's made of untreated hemp (pot!), linen (flax), benevolent staghorn, recycled cedar, bits of brass, and (unmentioned but comely) leather. I like: the shoulder strap, the spacious main pocket (with adjoining interior pocket for perennial items), and the full-length exterior pocket that is accessible when the bag is closed. —SB*

**HARTMANN BRIEFCASE:** \$400 plus shipping. Ambassador Luggage Store, 371 Madison Avenue, New York, NY 10017; 800/761-6777.

*Travelers with hundreds of thousands of airline miles use Hartmann tools because they've discovered that other luggage wears out quickly under heavy use. Hartmann is twice the price, five times the life; nothing fancy — just indestructible, with wooden frame, great hinges, and easy, secure locking. The more you beat it, the better it looks. And your stuff arrives wrinkle-free. —John Sumser*



### United States for Business Travelers

Alexandra Mayes Birnbaum & Lois Spritzer, Editors.  
HarperPerennial, 1994; 1013 pp. ISBN 0-06-278152-9  
\$14 (\$16.75 postpaid)

### Europe for Business Travelers

Alexandra Mayes Birnbaum & Lois Spritzer, Editors.  
HarperPerennial, 1994; 901 pp. ISBN 0-06-278126-X  
\$14 (\$16.75 postpaid)

Both from: HarperCollins Publishers/Direct Mail, PO Box 588, Dunmore, PA 18512; 800/331-3761









# Four-Wheel Jive

*Even more so than their truckish kin, Sport Utes are employed as costumes.*

BY J. BALDWIN

**A** PLAGUE IS UPON US! Motor vehicles are proliferating much faster than people. About fifteen million new (civilian) vehicles will be sold in this country in 1994 — far more than needed for replacement. About 40 percent of that shining horde of new machines will be Sport Utility Vehicles (SUVs), minivans or pickups. (The Ford 150 series full-size pickup is the largest-selling vehicle in the world.) Thanks to shameless lobbying, these vehicles do not yet have to meet the same environmental or safety standards as automobiles. This, despite the multitude of studies showing that a large majority of these hefty, petrolivorous critters will actually be used as automobiles, carrying an average load of 1.8 persons and two shopping bags (cockapoo optional).

Minivans are the most sensible of this bunch, but many of them seem to have been bought for their potential rather than the task actually at hand. How many times have you seen one filled to capacity?

Pickups are obviously used as beasts of burden on farms or in the trades. But studies show that the big majority rarely, if ever, tote a load. Like pre-washed denim, pickups are becoming *symbols* of work. Automakers are increasingly designing them to fulfill the desires of the majority of their buyers. Posh trim and tough image are edging out workaday brawn.

But where the effete *really* meet to tweet is in Sport Utility Vehicles, the ubiquitous all-purpose 4x4s typified by the best-selling Ford Explorer. SUVs feel robust and secure — Boss o' the Road. Recent investigations show that only 5 percent are ever used on gravel roads, let alone "off-road." Less than 15 percent ever have four-wheel-drive engaged for any reason. I owned a modest 4x4 while land-stewarding 3,400 acres of rough terrain. I engaged my four-wheel-drive less than 100 miles out of 85,000. Maybe 10

miles of that 100 absolutely required 4x4 ability to get through. That counts ski trips.

Even more so than their truckish kin, Sport Utes are employed as costumes. Their title is image, too. Ill-named, they are not sporty at all: the best have imprecise, clumsy handling on pavement or off, so-so brakes (many without anti-lock), and a bouncy gait that precludes resolute road grip. Most ordinary sedans drive more sportily — and more safely: SUVs flip easily in common accident-avoidance maneuvers. (The November 1992 *Popular Science* shows several teetering on the edge of disaster.)

Sport Utility vehicles aren't very utilitarian, either. Despite appearances, average ground clearance is only about 2 inches higher than a Buick (that's less than a handspan) unless optional monster tires are specified. Few SUVs have the locking differentials needed for positive drive to all four, or at least three wheels. (Most can only spin one front and one rear wheel helplessly when things are slick.) Even with locking differentials, stock SUVs couldn't cope anyway: the original-equipment tires are insuffi-

ciently toothy. Many popular SUVs are geared too high for serious boondocking, especially creeping uneasily *downhill* — the true test.

Sport Ute interiors are even less utilitarian. Dust-magnet cloth seats are soon irreparably sullied by wet dogs, leaky babies, and smelly fishing gear. Cargo holds are no better: they're lined with chi-chi carpeting that is not removable for messy hauling. One bale's worth of straw snippets irretrievably entangled therein will cost you plenty at resale time.

But the worst aspect of these rolling ego-puffers is that they engender an unfortunate attitude toward the environment. SUV advertisements often show natural beauty as accessible only by the 4x4s that are probably the scenery's biggest threat. (This brings to mind the housing developments quaintly named for what was destroyed to make them.) Needlessly unaerodynamic and overweight, Sport Utes get bad mileage — about 16 on average — and do not have to meet smog standards as strict as those for automobiles. As a breed, they represent imposing mediocrity and wastrel mentality. Alas, their numbers are growing.

If you are tempted to join the virulent worldwide Sport Ute fad, consider if you truly need 4x4 features, and what they will cost you and your Earth. If you Vermonters actually need a 4x4, at least check to see if a less aggressive machine — a Subaru wagon, for instance — will do. Be honest. For most buyers, four-wheel-drive is mere four-wheel-jive. ☹



## Secrets of a Super Hacker



### Secrets of a Super Hacker

The Knightmare.  
1994; 203 pp.  
ISBN 1-55950-106-5  
\$19.95 (\$23.95 postpaid)  
from Loompanics Unlimited, PO Box 1197, Port Townsend, WA 98368

This book is at once an exciting how-to manual for the aspiring hacker and an important reality check for anyone who thinks there is such a thing as a secure computer network. You don't know the lengths to which a computer hacker will go.

Hacking is a unique game, and the hows and whys of it can be elusive to the uninitiated. With great care and attention to detail, author the Knightmare explains basic and complex hacking technique and the motivations and ethics of the hacker.

*Secrets of a Super Hacker* is a must for the hacker, the systems operators dealing with security, and anyone else interested in this exciting and slightly illegal facet of online culture.

—Caius van Nouhuys

■ A person should have the right to examine information about him or herself in a computer file or database, and should be able to do so easily. The person should have the right to easily correct inaccuracies in that data, and to remove information that is offensive to that person. People should be guaranteed that all makers and suppliers of databases will enable these rights to be granted, in a timely fashion.

All of this is what *should* be the case, and in some situations these rights are currently acknowledged. However, most of these rights are almost unanimously ignored. Therefore it is necessary to *hack*.

● It isn't really a dirty job, and nobody has got to do it, but serious investigators will. By "investigators" I refer to hackers who are researching a company or computer. . .

While I'm inside the dumpster I like to make stacks of the papers I find and load them into garbage bags. Then I bring it home to examine what I've collected. You'll find internal phone directories, names of public and private individuals, training manuals, outdated files, letters, information about projects being worked on, and sometimes even mention of the computer system. Much of it is helpful, and most even interesting too.

## Evolution's End

From its title, this book could be a positive take on peak evolution or a how-to about developing intelligence. But it's actually a thoughtful, rather scary consideration of the confusion and ignorance so pervasive in contemporary cultures, and of the origins of our evident misdirection. Pearce's observations are drawn from diverse social and spiritual histories, scientific studies, and personal experience. His perception of mind and its relationship to external phenomena are informed by quantum physics on the one hand and inner-directed contemplation on the other.

Though Pearce's style is a bit flat, and I can't attest to the accuracy of his interpretation of scientific theory, I'm going to think about this one for a long time.

—Jon Lebkowsky

■ This source is not "unconscious" (collective or singular), but the very fountainhead



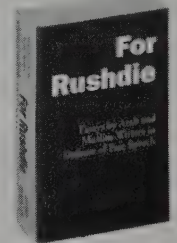
### Evolution's End

(Claiming the Potential of Our Intelligence)  
Joseph Chilton Pearce.  
HarperSanFrancisco, 1992;  
256 pp. ISBN 0-06-250715-X  
\$12 (\$14.75 postpaid) from  
HarperCollins Publishers/Direct  
Mail, PO Box 588, Dunmore, PA  
18512; 800/331-3761

of consciousness; however, we are largely unconscious of it. This source is intelligence itself; it gives rise to and powers our brain-mind and furnishes those potentials that we translate and live. This source arises as a single primary frequency that holds all variable frequencies within it — an infinite possibility for awareness-experience, a unity giving rise to endless diversity, a totality drawn on by the actions in the neural fields within us. The source is the universal, our response furnishes the needed individuality; yet each, individual and universal, diversity and unity, is "in" the other, as complements are. Whether drawn on in savant-fashion for a limited fact or as the great insights of a genius, the cosmic soup is the same; the difference lies in the medium sampling that soup.

## For Rushdie

The dilemma of Salman Rushdie continues. What more can be said at this late date about *The Satanic Verses*, its author, and the firestorm surrounding the book? This collection of ninety short essays by Arabs and Muslims (these two categories are not always synonymous) demonstrates that there is a wide range of responses to the Rushdie affair from within the Islamic world. The writers, who include many notable intellectuals, dissect the rationale for the fatwa against Rushdie, examine the players, offer poems and eloquent defenses of artistic freedom, and generally broaden our sense of the ferment within Islamic and Middle Eastern circles. —Jay Kinney



### For Rushdie

Anouar Abdallah, et al. 1993; 302 pp.  
ISBN 0-8076-1355-X  
\$14.95 (\$17.95 postpaid) from  
George Braziller, Inc., 60 Madison Avenue,  
New York, NY 10010; 212/889-0909

## The Saturated Self

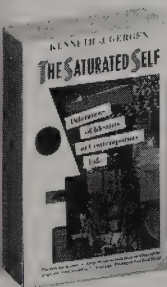
If you read only one book on the psychology of our contemporary technocrazed culture, read this one. Kenneth Gergen's brilliant analysis and description of our rapid-fire existence is one that nourishes the brain and soothes the soul.

Gergen gently lays out a description of our postmodern existence, where our concept of the self has become pluralistic (perhaps even schizophrenic). Allow yourself to be pulled into *The Saturated Self* and be comforted by the knowledge that it is the world, not you, that has gone mad. —Louis Collonge

■ Critical to my argument is the proposal that social saturation brings with it a general loss in our assumption of true and knowable selves. As we absorb multiple voices, we find that each "truth" is relativized by our simultaneous consciousness of compelling alternatives. We come to be aware that each truth about our-

Everybody, both as a matter of wisdom in general and out of respect for fundamental rights and liberties, must wish for the withdrawal of the condemnation of Salman Rushdie, and must make appropriate efforts to see this realized. It is not just a matter of an assault on the freedom of a writer being an assault on the freedom of everybody; more than that, we must actively want this talented and courageous author to be free. The media do not sufficiently emphasize this latter reason, but we must place it in the forefront of any defense of Rushdie.

The death sentence that menaces him sets in motion a double mechanism and provides satisfaction for two different interested parties. On the one hand, it establishes the image of a "fanatical Islam" in Western public opinion; on the other hand, in Muslim countries and particularly in those Muslim countries under Iranian influence, it reinforces the judgment that the West sees in Islam nothing but fanaticism. It is thus not difficult to designate the main beneficiaries of the very effective diffusion of current prejudices the media are re-enforcing. In the West the beneficiaries are the conservatives for whom Islam cannot change except through force and violence. And on the other side, there are the Muslim fundamentalists who go on maintaining that democracy is an alien institution, incompatible with their religion. —Orpham Pamuk



### The Saturated Self

(Dilemmas of Identity in Contemporary Life)  
Kenneth J. Gergen.

Basic Books, 1992; 295 pp.  
ISBN 0-465-07185-6

\$15 (\$17.75 postpaid) from  
HarperCollins Publishers/  
Direct Mail, PO Box 588,  
Dunmore, PA 18512;  
800/331-3761

selves is a construction of the moment, true only for a given time and within certain relationships.

The postmodern tactic of deconstruction and reconstruction does have the capacity to emancipate the culture from the binding and deeply problematic effects of this grand modernist narrative. The virtually unquestioned cry for "progress" is reduced to a rhetorical exhortation, thereby opening spaces for intelligible alternatives.

## Writing Down the Bones • Long Quiet Highway



*Natalie Goldberg's writing plows right through my carefully nurtured defenses and straight into my heart. Something about the combination of her craft, honesty and fundamental humanity makes her "wake-up" call seem like an imperative.*

*Writing Down the Bones is about practicing writing. Long Quiet Highway is about writing as practice.* —Jill Hannum

This book is about writing. It is also about using writing as your practice, as a way to help you penetrate your life and become sane. . . . To do writing practice means to deal ultimately with your whole life. —Bones

### Writing Down the Bones

(Freeing the Writer Within)  
Natalie Goldberg, 1986; 171 pp.  
ISBN 0-87773-375-9

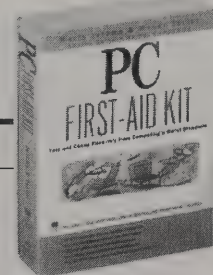
\$10 (\$13 postpaid) from Shambhala Publications/Order Dept., PO Box 308, Boston, MA 02117-0308; 617/424-0228

### Long Quiet Highway

Natalie Goldberg, Bantam Books, 1994;  
238 pp. ISBN 0-553-37315-3

\$10.95 (\$13.45 postpaid) from  
Bantam, Doubleday, Dell/Fulfillment Dept.,  
2451 S. Wolf Road, Des Plaines, IL 60018;  
800/223-6834

Naropa was organic, alive. There was always the threat that it could fold financially. This was good. Only something alive can die. The public schools go on year after year. They don't die because they are not alive. I remember a reading at Naropa in a gymnasium with six hundred people cheering six poets. In the United States, where poetry is not valued, this was a marvelous experience. —Long Quiet Highway



### PC First-Aid Kit

*I have been lost in my PC's win.ini, sys.ini, autoexec.bat, config.sys files too many times to tell you. I have made changes, and then forgotten what they were, re-booted, and found myself staring into a screen that has no relationship to anything I've ever seen. Who do I call? What do I do? I have fantasized about throwing my computer on the floor, slamming it with a hammer, etc.*

*PC First-Aid Kit is enlightening; not that it can hold your hand or fix your PC for you, but if you focus on the table of contents and let the frustration go, you will have your answer in a few seconds. This book is my favorite, and the software that comes with it is wonderful.*

—Harlan Hoffman

### PC First-Aid Kit

Marty Jerome & Wendy Taylor, 1994;  
361 pp. ISBN 0-201-62627-6

\$24.95 postpaid from Addison-Wesley Publishing Co./Order Dept., 1 Jacob Way, Reading, MA 01867; 800/447-2226

What frustrates most technical-support calls, however, is just bad communication, usually on both ends of the phone line. Misunderstandings most often arise out of the gulf between your knowledge about computers and the technician's. You fail to clearly articulate the problem; your technician babbles back a solution you only vaguely understand. You both hang up.

Still, talking to nerds isn't as daunting as it may seem. And whatever the technical problem, your time on the phone will be more productive if you have several key pieces of information about your system and its configuration on hand. These will expedite your call and keep tempers from flaring.



## Box Beam Sourcebook

"It's relatively easy to draw things, harder to engineer, and usually impossible to build." So says Phil Jergenson, developer of this versatile and simple modular structural system. It amounts to an adult Erector Set that enables ordinary citizens to "wrench-build" a variety of machines and structures without expensive engineering and machine shop services. This is a great advantage even in these days of computer simulations: sooner or later you must fabricate real materials for proof of concept and testing. Working prototypes can thus be constructed quickly right from crude sketches, without even a modest home shop. The principle seems obvious, but — as with all modular systems — there are tricky, subtle details that must dance compatibly for the system to work.

Phil has everything dancing very smoothly indeed. Like most successful designers, he started with a good set of criteria. The system should:

- Be simple.
- Be inexpensive.
- Be strong and rigid.
- Be user-friendly.
- Be capable of being manufactured from locally available materials.
- Be modular, and have a minimal number of types of pieces.
- Use nuts and bolts as the fastening method. (Bolting allows things to be changed easily; welding encourages development-arresting "good enough.")
- Be available in different sizes matched to the job.
- Be available in different materials.
- Reflect the integrity of the materials.
- Be completely reusable.
- Be low-tech.



Even the temporary erecting crane of this portable house is Box Beam. The house has been moved several times, but has not yet been developed with sufficient detail to be a commercial venture.

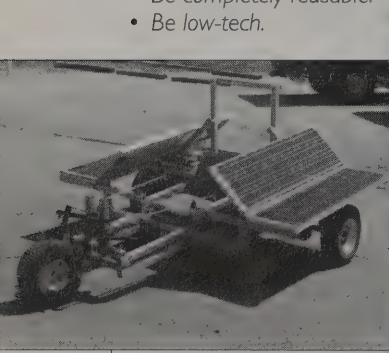
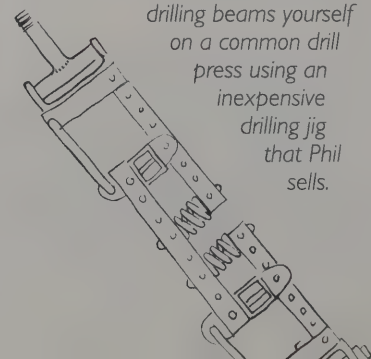
The Box Beam system is all of the above. The basic beam is usually 1 1/2" square metal tubing (your choice of material) drilled in a special pattern that permits strong joints without additional parts or gratuitous hole-making. The hole pattern will also work in wood sections that you can use as cheap, non-load-bearing mock-ups of the proposed metal version. Even cheaper paper models are easily scaled up. The **Box Beam Sourcebook** includes a pattern for making paper Box Beams.



This solar vehicle was built in California in 1991 for a solar-energy workshop at a school in Japan. For the trip, the machine was taken apart and rebuilt as its own packing containers with travel clothes padding the components. The three containers went on the airplane as luggage. The vehicle was then re-assembled in Japan by children. I'll bet they remember it a long time.

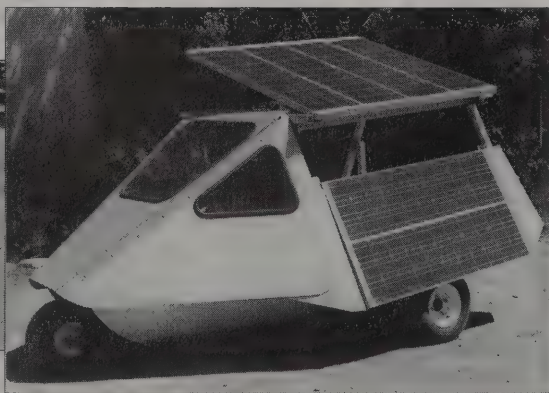
Besides providing patterns, The **Box Beam Sourcebook** tells you where to get materials, how to lay out and detail your project, and, most importantly, how to think about it. The many photographs — a few of which we show here — make it all clear.

You can save money by drilling beams yourself on a common drill press using an inexpensive drilling jig that Phil sells.



The "X-Wing" solar vehicle (left) proved itself

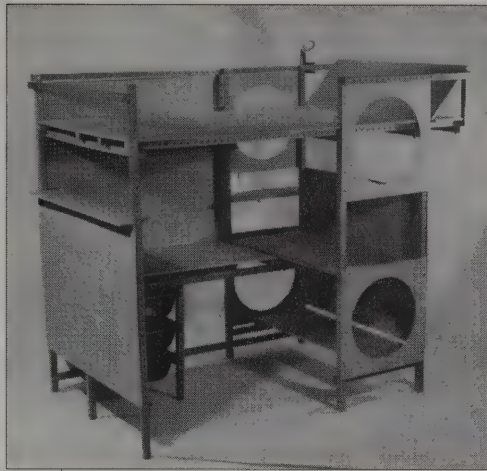
to be stable and useful but too low to be safe in traffic. Box Beam construction permitted it to evolve into the more visible 90-cubic-foot Vanda (right) in just a few weeks. Designer Phil Jergenson suggests unusual possibilities for this design: it could be modified to open into a temporary shelter with the usual camping amenities; the solar array could be used to run power tools or even to make ice while the machine is parked. Vanda was later dismantled; the solar array now powers a house, the Box Beams are used in other projects.



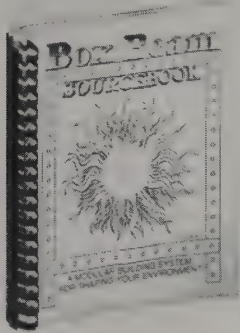
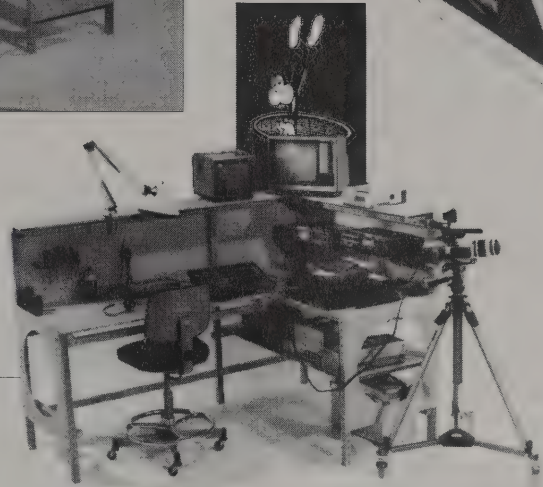


He also sells special parts such as axle hardware (Box Beam-compatible, of course) and a video. A user's newsletter, **Box Beam Builder**, encourages you to share successful moves.

I consider the Box Beam system to be an important addition to the capabilities of ordinary thing-making folk. The ease in making changes permits knowledge-building iterations of a design as it progresses towards perfection. The Box Beam helps innovators meet Buckminster Fuller's challenge: "Good hardware is one of the few irrefutable proofs of clear thought." The Box Beam system itself certainly rates as good hardware. —J. Baldwin



**Bunk bed/desk and production studio are adjustable and easily modified by a little wrenchwork to fit users and surroundings.**



### Box Beam Sourcebook

(A Modular Building System for Shaping Your Environment)  
Phil Jergenson. 1994; 100 pp., \$20 (\$22 postpaid)

### Box Beam Builder:

Phil Jergenson, Editor. \$20/year (3 issues)  
Both from Suntools, PO Box 1029, Willits, CA 95490; 707/459-2624

## 3D Home Architect

This affordable amateur's CAD (computer-aided design) software is relatively easy to learn and use — in contrast to many competitors and most complex professional CAD setups. A bit of practice will have you drawing without knowing how to draw. A "toolbox" of procedures awaits your command at the top of the screen. A huge inventory of furniture and architectural feature symbols lets you design rooms as you wish, but not in ways that are ridiculous to build (and not in curved plans, unfortunately). A click instantly puts your floor plans into a choice of zoomable 3D views that you can mess with on screen (including trying out different color schemes). Your changes will automatically change the



original floor plan, too. An "inspector" is available to call in for comment.

The program will prepare a materials list for cost estimating. The software includes fifty professionally done plans for your edification while you develop your own designs. You'll need a PC with Windows 3.1 and a mouse (alas, no Mac version). What you perpetrate can be exported to professional CAD programs.

Very cool, and great fun.  
—J. Baldwin

### 3D Home Architect

IBM PC 386 or better,  
VGA monitor, 4 MB RAM,  
Windows 3.1, \$59.95 postpaid  
from Brøderbund Software,  
PO Box 6121, Novato, CA  
94948; 800/521-6263



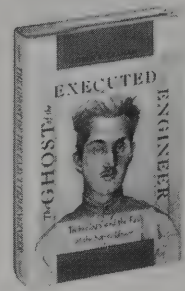
## The Ghost of the Executed Engineer

The Soviet Union mortgaged the lives of its people to become a military super-power. Here's a description of how it happened, one that asks a harsh question about our own penchant for trying to answer complex social questions with technological answers. —John Lions

Stalin insisted on the construction of gigantic hydroelectric power stations, which he found impressive in scale and revolutionary symbolism, regardless of the local conditions that Palchinsky found so important. Stalin demanded that industrial establishments be of great size, preferably the largest in the world — an industrial policy that Western observers later characterized as “gigantomania.” Palchinsky maintained that size was not, in itself, a virtue. Stalin was quite willing to force poorly educated peasants from the countryside to perform tasks in new industries for which they were not qualified. The results were high accident rates and shoddy production, graphically described in memoirs of the period. The relocated workers lacked adequate housing, especially for the winters. Their high death rate from exposure and disease was for Stalin an acceptable cost, but for Palchinsky it was a sign of irrationality, inefficiency, and injustice.

While Palchinsky called for moderation, saying “We are not magicians, we cannot do everything,” Stalin maintained “There are no fortresses that Bolsheviks can not storm.” And while Palchinsky held that the human factor was of utmost importance in industrialization, Stalin stressed that “technology decides everything.” More than a little irony exists in the professional engineer’s call for attention to human needs over technology while the Party leader emphasized technology above all else.

The workers responded to this neglect of their needs by lapsing into apathy. Their naive hope that, in time, the Soviet regime would keep its promises took a long time to fade, but eventually it disappeared completely. In the last years of the Soviet Union, the attitude of the members of the proletariat, the supposed beneficiaries of communism, was expressed in the cynical observation “We pretend to work and they pretend to pay us.” In the final years of the regime, the phrase was revised to “They pretend to rule and we pretend to obey.” Against this background, Palchinsky’s advice that the “human factor”



### The Ghost of the Executed Engineer

(Technology and the Fall of the Soviet Union)

Loren R. Graham. 1993; 128 pp.

ISBN 0-674-35436-2

\$22.95 (\$25.95 postpaid) from Harvard University Press/Customer Service, 79 Garden Street, Cambridge, MA 02138; 800/448-2242

should be utmost in the mind of the engineer or manager was prescient. The gross neglect of human beings by the Soviet regime was a primary reason that it collapsed so strikingly easy. In the end, it had almost no defenders.

## The Map Catalog

“We have become awash in maps,” the editors state in their introduction, but this comprehensive, well-organized book provides an easy route to almost any type of map imaginable.

Need a geologic map, a bicycle route map, a nautical chart, or computer-mapping software? All and much more are found along with abundant examples, descriptions and sources for the tremendous variety of map products available today. The accompanying text gives concise background and history as well as addressing the future of mapmaking arts in the computer age.

If you like maps, need maps or are just curious about the world of maps, this book is for you. As for me — a long-time collector, user, and maker of maps — I have thrown away all the tattered government pamphlets that were once the best map sources. Now my map journeys begin in *The Map Catalog*.

—Sharon G. Johnson

### Boundary Maps

When it comes to drawing the line, nobody does it better than Uncle Sam. The federal government has worked diligently to draw and maintain the intricate boundaries that separate it from Canada and Mexico, as

well as those dividing the contiguous 48 states from each other. The United States isn’t alone in this endeavor: the surveyors of most other countries have long strived to divide conquered kingdoms and define lands given as gifts in royal marriages or annexed after a war.

### Emergency Information Maps

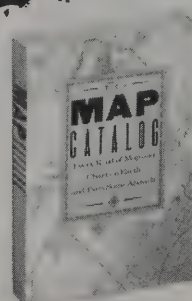
The adage “forewarned is forearmed” is especially true when it applies to rising flood waters or tremors signaling a major quake. Maps of potential or past disaster can often avert serious injury and property loss. But mapping for emergencies can be a tricky thing. Not knowing what emergency will occur, or when and where it might strike, makes it virtually impossible to plan for every event. Still, areas that are flood- or earthquake-prone, seaside towns frequently hit by hurricanes or tidal waves, and any place with a history of disaster, will probably have maps for evacuation and insurance purposes.

### The Map Catalog

Joel Makower, Editor. Vintage Books, 1986, 1992; 252 pp. ISBN 0-679-74257-3 \$20 (\$22 postpaid) from Random House/Order Dept., 400 Hahn Road, Westminster, MD 21157; 800/733-3000



*Note*  
Anacapa Island is the East of Santa Cruz Island in  
Approx. Lat. 34° 00' and Long. 118° 23' W from Greenwich  
Observatory  
Variation of the Magnetic Needle 13° W E



## The Spirituality of Imperfection

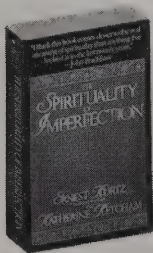
Stories from traditions around the world showing us it's okay to be flawed and limited beings. A book you can go back to again and again for re-affirmation of the grand imperfection of humanity. Required reading for perfection-addicted people. —Lois Anderson

The chief executive of a large company was greatly admired for his energy and drive. But he suffered from one embarrassing weakness: each time he entered the president's office to make his weekly report, he would wet his pants!

The kindly president advised him to see a urologist, at company expense. But when he appeared before the president the following week, his pants were again wet! "Didn't you see the urologist?" asked the president.

"No, he was out. I saw a psychiatrist instead, and I'm cured," the executive replied. "I no longer feel embarrassed!"

In our quest for spirituality, a chief danger is the temptation to change the rules. We attempt to escape our imperfection by redefining or lowering the standards necessary for "perfection" or by blaming our flaws and errors on someone else. The tradition of a spirituality of imperfection reveals such attempts for what they are — unnecessary. True healing follows the example of the early Christian church, which, rather than redefining the rules to allow anyone to declare himself perfect, sought to provide "a vision of life in which imperfections could be endured."



### The Spirituality of Imperfection

Ernest Kurtz & Katherine Ketcham.

Bantam Books, 1994; 293 pp.

ISBN 0-553-37132-0

\$11.95 (\$14.45 postpaid) from Bantam, Doubleday, Dell/Fulfillment Dept., 2451 S. Wolf Road, Des Plaines, IL 60018; 800/223-6834



The Stress Shield

## The Joys of Carpooling

Think of this brief but practiced pamphlet as a box of Carpool Helper. Add people, a bit of determination, and things should go well. Good stuff. —J. Baldwin

If you never thought you could get your work done in eight hours, you may be surprised! Knowing you have to leave at carpool time instead of "whenever" helps you organize your time more effectively.

A good carpool for a five-day workweek consists of four partners. Each of you drives the carpool one day, and one day a week each of you drives alone. That way, each of you has a car at your disposal two days a week.

If the cost of a taxi alarms you, remember the money you are saving by carpooling, and the relative infrequency of emergencies which would require a cab ride. Check with your employer to see if they have a commuter program which pays for a guaranteed ride home by taxi in case of emergency.

### The Joy of Carpooling

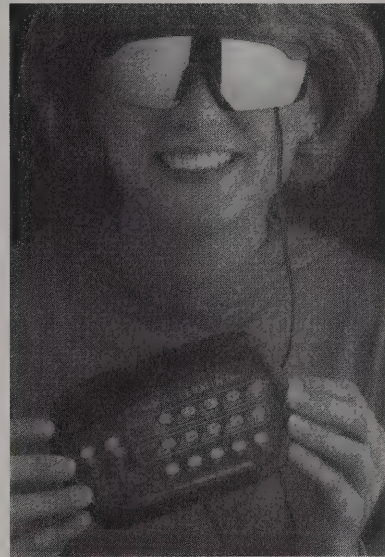
Susan Shankle.

1993; 24 pp.

\$5 postpaid from Susan Shankle, 3182 Campus Drive #364, San Mateo, CA 94403; 415/574-2301



## Mega Brain Power



### The Mastermind DLS

In this review of consciousness technologies and mind-expanding practices, Michael Hutchison tells you how to find and use technologies that will tune your brain to the mental states normally associated with deep meditation. He explores current brain theory and the various methods for manipulating and enhancing brain function to achieve results beyond the usual goal of relaxation. There's a great bonfire of information here, and a positive cyborganic vision of the human enhancement potential in these evolving technologies.

—Jon Lebkowsky

The addiction model is enormously seductive. If these unwanted behaviors are addictions, then they are, by the accepted definition, diseases, and we're not respon-

sible for our diseases or the diseases of our parents or spouses or lovers. And of course the first step toward overcoming these addictions, as counseled by the twelve-step groups, is to accept and admit that we are powerless over our addiction. If we are powerless, we are not responsible. In fact, we are victims of our disease. And those who are members of dysfunctional families, "adult children" of addicts, are doubly victims, because they are trapped in unwanted behaviors not of their own making, but imposed on them by their addictive parents or their dysfunctional family. All these harmful behaviors are the result of addiction, which is a disease, which means they're not our fault. We're not responsible. Our behavior "happens" to us. It is the result of our mental states, and our states are the result of our dysfunctional brain states that are the product of our dysfunctional family life of our dysfunctional childhood. We must accept that we are powerless. Shit happens.



### Mega Brain Power

(Transform Your Life With Mind Machines and Brain Nutrients)

Michael Hutchison. Hyperion, 1994; 455 pp. ISBN 1-56282-770-7

\$14.95 (\$17.45 postpaid) from Little, Brown and Co./Order Dept., 200 West Street, Waltham, MA 02154; 800/343-9204



TOPSTAR DRY - Fluorescent 12864-1  
 GERMANY  
 STAEDTLER TOPSTAR

## Topstar Dry Highlighters

These are highlighter pencils. Like ordinary colored pencils, they're odorless, dry, and won't bleed through fax or tracing paper. Their pointy precision permits underlining in close quarters. Unlike their scribbly leaden kin, they come in brilliant fluorescent colors. Unlike chemical markers, there is no empty plastic husk to discard. A markedly good idea. —J. Baldwin

**Topstar Dry Highlighters**  
 Approximately \$1.50 each at stationery and art supply stores. For the name of your local retailer, call Staedtler Inc. at 800/776-5544.

## Gridcore ENVIROlite

Recycled wood, cardboard, paper, plant fiber and textiles are among the ingredients of this new construction panel. No noxious substances are involved. Gridcore is hollow, and consequently much lighter, stiffer and better insulation than plywood or other rivals of the same dimensions; Gridcore can replace them for many duties. More interesting is that Gridcore can be molded into shapes and even entire objects. One

of its first uses was in movie sets, which are notorious for wasting plywood. My spies in Hollywood give early (prototypical) samples of Gridcore mixed reviews. This is not surprising: the first of anything new is rarely as good as the well-developed old. Now that the material is in full production, I bet you'll be hearing a lot more about it as its makers and users learn its capabilities and personality. But you won't hear much from municipal dumps where scrap construction material typically makes up the majority of the landfill: dead Gridcore can be used to make new Gridcore. Now that's recycling! Sounds kind of cannibalistic, even. —J. Baldwin

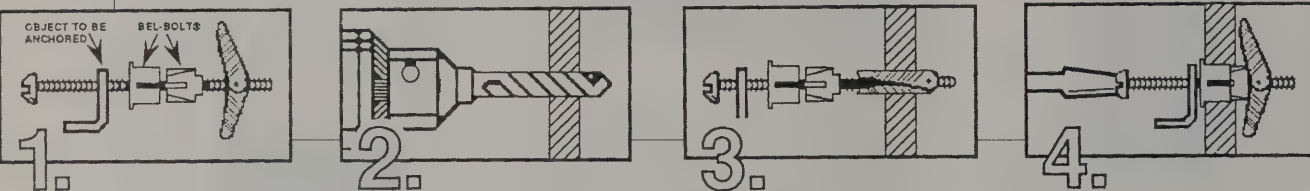
**Gridcore™ Structural Panels**  
 Information from Gridcore Systems International/Sales Dept., 1400 Canal Avenue, Long Beach, CA 90813; phone 310/901-1492, fax 301/901-1499.

## Bel-Bolt

Bolting heavy stuff to drywall out there in the disaster territory between wall studs is always iffy. Traditional specialized hardware has an intransigent tendency to pull right through the wall when a load is applied. The Bel-Bolt reduces — but does not entirely eliminate — this insolence. —J. Baldwin

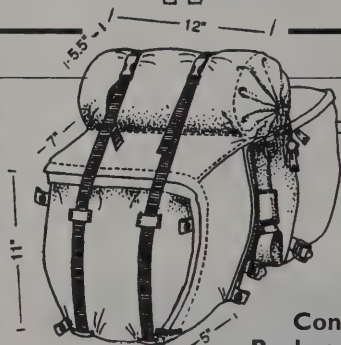
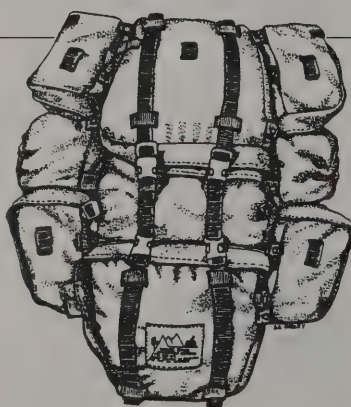
**Bel-Bolt**  
 Minimum order of 6: 1/8" \$3 (\$5.50 postpaid), 3/16" \$3.25 (\$5.75 postpaid) from Bel-Bolts, Inc., RR 4, Box 844, Brattleboro, VT 05301; 802/254-3836.

(Suggested by Tom White)



## Convertible Backpacks

This respectable internal-frame backpack niftily transforms into equally respectable bicycle cargo panniers. Or is it the other way around? In either manifestation, the rig is better than you might expect — obviously the result of long hours of design and modification until things were right. Trustably constructed from good materials. Lock the bike to a tree and go for a hike. Get off the plane and rent a bike. Things you couldn't do before can now be done. —J. Baldwin



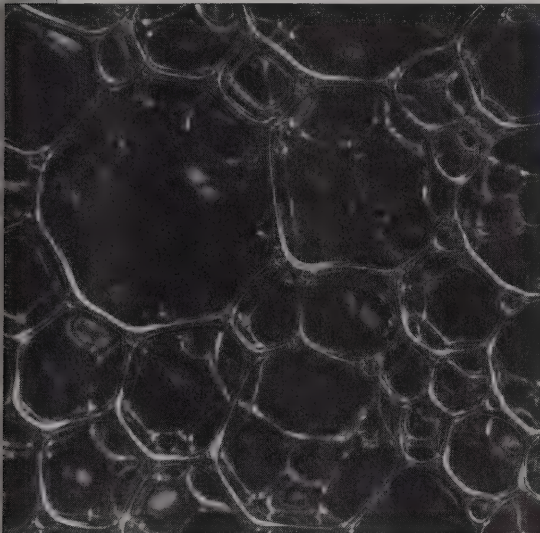
**Convertible Backpacks**  
 \$246-\$353 postpaid.  
 Information from PO Box 919, Fort Collins, CO 80522; 303/484-7562



## By Nature's Design



**By Nature's Design**  
Pat Murphy & William Neill.  
1993; 120 pp.  
ISBN 0-8118-0329-5  
\$18.95 (\$22.45 postpaid)  
from Chronicle Books/  
Order Dept., 275 5th Street,  
San Francisco, CA 94103;  
800/722-6657



An array of soap bubbles echoes the geometry of the honeycomb. The bubbles meet in threes to form 120° angles, the arrangement that minimizes the stretching of the soap film.

Branching of streams; branching of veins; branching of branches; closest packing; minimum surface area; fractals. The design of things natural produces patterns expressing the laws of physics, chemistry and genetics. These remarkable photographs and their guiding captions help you see beyond aesthetics to true appreciation of the beauty of this place. —J. Baldwin

• To make a single gram of beeswax, a honeybee consumes over sixteen grams of honey and an undetermined amount of pollen. Bees construct honeycombs according to a design that minimizes the use of this metabolically expensive commodity. The wax walls of the honeycomb's cells come together in threes at 120-degree angles, forming a regular array of hexagons. This pattern lets the bees minimize the amount of wax they use, while providing a rigid structure in which to store honey.

## Atlas of Satellite Observations Related to Global Change

Anti-tech environmentalists must accept the irony here: the first large-scale observations of biological, atmospheric and electromagnetic phenomena were made possible by ultra-high-tech satellites feeding big computers. This atlas shows what can be done in various disciplines. Changes in lightning distribution, desertification, wind velocity, and ice sheets are among the subjects examined by the inexorable, beady-eyed sensors whizzing by at 18,000 mph far above. The findings presented here are intended for scientists, but most any educated person



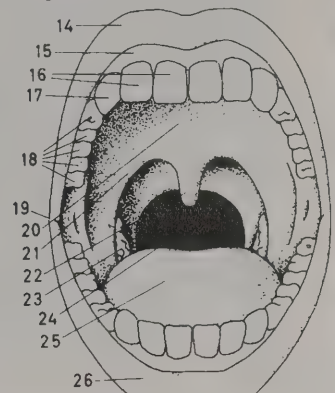
### Atlas of Satellite Observations Related to Global Change

Robert J. Gurney, James L. Foster, Eds., et al. 1993; 470 pp. ISBN 0-521-43467-X  
\$49.95 (\$51.95 postpaid) from Cambridge University Press, 110 Midland Avenue, Port Chester, NY 10573; 800/872-7423 (outside NY), 800/227-0247 (NY only)

can catch the potential as they gander the graphics. And it's just the beginning. —J. Baldwin

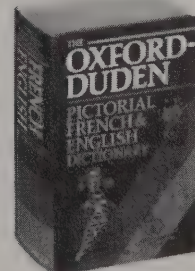
## The Oxford-Duden Pictorial French & English Dictionary

This unique reference presents about twenty-eight thousand items as pictures, labeled in English and French. The items are arranged in sets pertaining to a given subject, giving a quick and visually memorable working vocabulary for the task at hand. Some folks will find this useful; some won't. Either way, it's fun to browse. Also available in English-Chinese, English-Dutch, English-English, English-German, English-Japanese, English-Portuguese, English Serbo-Croatian, and English-Spanish. —J. Baldwin



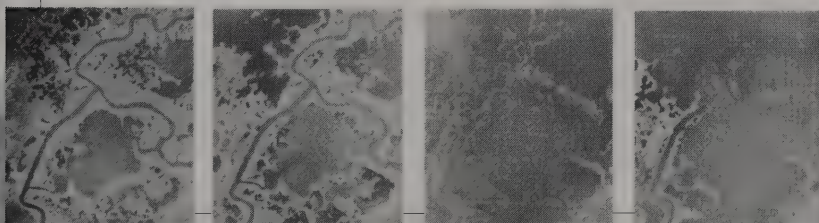
14-37 la bouche et le pharynx -mouth and throat	22 a luette -uvula
14 la levre supérieure -upper lip	23 l'amygale f -palatine tonsil (tonsil)
15 la gencive -gum	24 le pharynx -pharyngeal opening (pharynx, throat)
16-18 la denture -teeth (set of teeth)	25 la levre -tongue
16 les incisives f -incisors	26 la levre inférieure -lower lip
17 la canine -canine tooth (canine)	
18 les molaires f -premolar (bicuspid) and molar teeth (premolars and molars)	
19 la commissure des lèvres -angle of the mouth (labial commissure)	
20 le palais -hard palate	
21 le voile du palais -soft palate (velum palati, velum)	

## The Oxford-Duden Pictorial French & English Dictionary



1989; 384 pp. ISBN 0-19-869154-8  
\$17.95 (\$22.10 postpaid) from Oxford University Press/Order Dept., 2001 Evans Road, Cary, NC 27513; 800/451-7556

Sequential vertical aerial photographs of the Big and Little Blackwater Rivers of Maryland, indicating progressive marsh loss as interior ponds coalesce.



1938

1957

1972

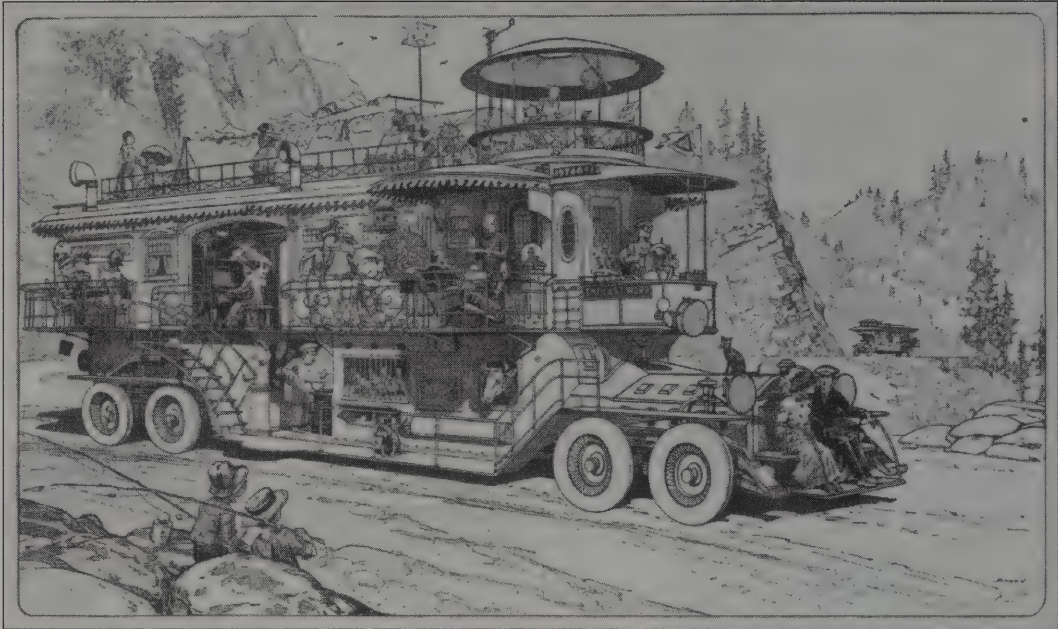
1988

27 GATE 5 ROAD SAUSALITO, CA 94965

87



# Further!



By remembering Point Foundation in your estate plans, you can provide for a new generation of merry pranksters dedicated to sharing their passionate optimism with all who dream of taking up tools and making a difference.

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- Further INstitute: cultivating the human network for new tools and ideas.
- R. Buckminster Fuller Centenary: celebrating a life of work and play.
- Whole Earth Review
- The Millennium Whole Earth Catalog

You may leave a bequest in your will. You can name Point Foundation as a beneficiary of your living trust, life insurance, or qualified retirement plan. You may even provide income to surviving loved ones while creating an estate gift to Point Foundation.



For more information on bequests, trusts, gift annuities, or other methods of planned giving, please contact Jerry George, Development Director, Point Foundation, 27 Gate Five Road, Sausalito, CA 94965. 415-332-1716.



# Elvis Sighted in Ancient Rome

## Tabloids As Myth

It's a guilty pleasure.

**H**

ARMLESS, YOU TELL YOURSELF, standing in the supermarket checkout queue, reaching for this week's screaming headlines: *How Loni's Lawyer Made Bitter Burt Cough Up \$10M. Aliens Visit Clinton in Oval Office. Liz Taylor Faces Life in Wheelchair. Michael Jackson Outrage: Scandalous Reasons You'll Have to Pay for His \$50M Deal with Boy. One-Hundred-and-Fourteen-Year-Old Woman Gives Birth to Triplets.* The exclamation points are all implied.

BY PATRIZIA DILUCCHIO

Like all illicit thrills it seems so carefree at first. What can it hurt if I buy just one? Should I go for the *National Enquirer*, the *Star*, the *Weekly World News*?

You have been lured by the siren song of the tabloids, journalism of the lowest common denominator. An estimated fifty million people read them each week, although if your IQ is one of the data points you prize yourself on, you probably won't admit to being one of them. Intellectuals look upon the tabloid phenomenon with despair as the symptom of the general degradation of our culture. Such magnified representations of the debris of daily life sharpen the American taste for excess, and excess is the enemy of truth and calm, enlightened, literal understanding. The tabloid sensibility, it is argued, is an intellectual cancer that infiltrates the mainstream

media, metastasizing into Tonya Harding headlines and diverting attention from such meaningful topics with palpably moral subtexts as health care reform and intervention in Bosnia.

What such arguments fail to take into account is that the vulgar and the sublime share a very narrow bandwidth in the human consciousness. If a popular medium is judged to be less than honest, it may well be because the truths it deals with are not necessarily addressed in its facts. Gossip and celebrity schmoozing are the primary process of folktales. When enough time has passed, this ore is transformed into myth.

Myth, of course, is non-literal truth. By its very nature, then, it is threatening to an intelligentsia that has been indoctrinated since childhood in the sacrosanctity of fact.

*The largest-selling periodicals in America are available at supermarket checkout counters.*

*Patrizia DiLucchio is a Millennium Whole Earth Catalog editor in charge of the sections on birth, sex, and death. —JS*



# SATANISTS ORDER AND EAT DELIVER

**CRAZED CULT** members ordered a pizza, then sliced up and ate the delivery man as the main course in their sick Satanic ritual – but left the pizza uneaten. Even veteran investigators were sickened by the sight of the young man's remains. The wacky members of the strange cult buried all of the victim's internal organs and much

STORY BY NICK PATRICK

MY FIRST exposure to the *National Enquirer* came as a child staring, terrified, into subway kiosks at the faces of prematurely aging children and the dazed expressions of train crash victims while my own train flashed past. *Toddler Has Body of Eighty-Five-Year-Old Man. Crash Survivor Sees Virgin Mary.* The underground setting seemed particularly appropriate for the arsenal of monsters these stories unleashed in my seven-year-old imagination. The shadow side of the national psyche flickered past me, exposed. In the fifties and early sixties, America needed reminders of its monsters to break the camouflage of its placid affect. After all, a real monster was lurking out there in the missile silos. Duck and cover.

Well into the sixties, the standard fare of the *National Enquirer* remained bizarre human interest stories: horrific accidents and murders, rare diseases, unexplained mysteries (often implying supernatural intervention), vicious celebrity gossip with the occasional cute-kid feature and the uncovering of a consumer fraud thrown in to make it all seem normal.

In the seventies, this tabloid switched its focus. Gone were the gore and the questionable personals; in their place came homey pop psychology pieces, articles on household repair, the occasional human interest celebrity bit, and of course, the ever-popular disclosures of occult manifestations in our midst. Was it just coincidence that the Zeitgeist had changed as well? The spirit of the time was revelational: the monsters were out there for everyone to feed; now it was the longing for a cozy nest that was our dirty little secret.

By the 1990s, the tabloid market had segmented into its current pattern. The *National Enquirer*, the *Star* and the *Globe* are primarily concerned with the celebrity beat, while the *Weekly World News*, the *Sun* and the *National Examiner* have inherited the market for lurid sensationalism. Each tabloid, of course, has its own distinct

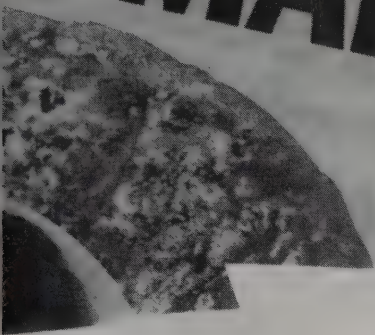
flavor: the *Star* varies its celebrity coverage with an advice-to-the-lovelorn column as well as a capsulized romance story on every end page; the *National Enquirer* sprinkles its pages liberally with recipes, pharmaceutical breakthroughs, and a continuing feature that attempts to link deserving foster children with adoptive parents.

The combined weekly circulation of the six major supermarket tabloids is approximately ten million, but these are the types of magazines that tend to get passed along at hair dressers' salons (if not in doctors' offices): their combined estimated weekly readership is more like fifty million. They are produced with relatively small overhead and in extreme secrecy, and they make enormous profits.

No wonder they terrify self-styled legitimate journalists.

Clippings: *Weekly World News*, *National Examiner*, *National Enquirer*.

**R PIZZA  
Y MAN**



All myth began as storytelling, a form of entertainment. With constant retelling, the stories that form the great mythologies became formalized, with increasing emphasis placed upon their moral dimensions. Tabloids,

then, are incubators harboring embryonic archetypes, nestled in the amniotic pitch of popular culture.

Myths, of course, do not ask questions. In

circumvent that problem handily by using well-known personalities to navigate the more treacherous moral straits. Consider the fascination with celebrity marriage and divorce. Divorce is rampant in American society. Volumes of sociological research have chronicled its effect, but statistics cannot convey the real pain as vividly as the bitter front-page battles of star-crossed lovers, American icons court-bound and bent upon the destruction of our romantic dream.

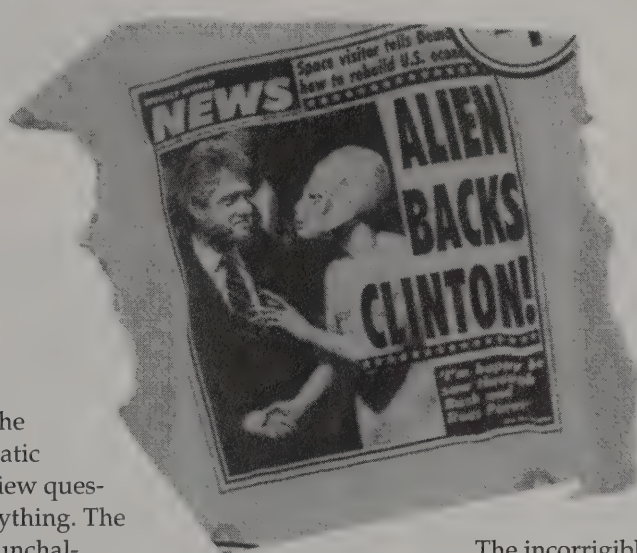
Tabloids, like Scriptures, are subject to a wide range of interpretation.

Certainly there are readers who are literal constructionists, believing to this day that Elvis is not dead but merely visiting his fiancée on Alpha Centauri, or that John F. Kennedy lives on in a Swiss clinic from whence he will return for the apocalyptic showdown election in the year 2000, when America will need him the most. Tabloids as hagiography.

The majority of tabloid readers, though, are looking not for truth, but for diversion. Stories about real people are the best kind of diversion. They both entertain and instruct, offering up a mirror in which one can either identify one's own face or reject its distortion.

contrast, the more Socratic modern view questions everything. The absolute, unchallenged, and didactic in contemporary thought becomes propaganda, somehow suspect and dangerous because it is chiefly concerned with the propagation of immutable ideologies. Tabloids are nothing if not propagandizers of the American dream. Not everyone can grow up to be president, but anyone can become a movie star, or at least have a movie star's problems.

The trouble with most ideology is that while concerned with the larger issues of human experience, it seldom wears a human face. Politicians and preachers have always known this. Tabloids



The incorrigible make good cover stories too. But America loves nothing more than the bad boy/girl redeemed by Betty Ford or a loving marriage. (Debilitating physical ailments and highly publicized charitable involvements are good for bonus points.)

Elizabeth Taylor is the quintessential case in point; her tabloid career (counting movie magazines) has spanned six decades of her life and ours. We watched her grow up. In the wholesome fifties, we gasped with dismay when her first girlish foray into connubial



**...getaway**  
 The bold burglars first broke into an ad- and smashed through the wall that led into the vault. They rifled 44 of the 450 safe deposit boxes before making a

cry, Mummy, I'm back ing a nu now." Ami's plight started tumble. "She just collapses wherever she is," says

cial respiration but that sure ly die very sh "As she comes back she After Ami near "She

# Half of America is nuts

ONE OUT of every Americans is nuts

by KEN O'HARA

they didn't fit in with

bliss was thwarted by the spoiled and petulant Nicky Hilton. We breathed a sigh of relief when she retreated into a domestic arrangement with Michael Wilding, but we knew It Wouldn't Last. Then came Mike Todd, late nights, champagne, extravagant jewelry. We saw they were right for each other. When the plane crashed, we cried. But that didn't give her the right to break up Eddie's marriage. Or Richard's. La Scandal not only dominated the tabloids, it chased the rise of Camelot and the latest Cold War machinations off the front pages of three continents. Her transformation into Bad Girl made Elizabeth Taylor legitimate news. Each flash of cleavage, each drunken rendezvous was worth a headline.

(It didn't matter that during that time she was doing her best work. Her work as an actress was absolutely irrelevant to her role as a celebrity.)

Three marriages and two decades later, Elizabeth Taylor bottomed out in a posh California rehab.

Her redemption was inevitable.

Her comeback, ironically, coincided with the political rejuvenation of the Reagan years. It was time to feel good about ourselves again — at least this was the hype.

Elizabeth Taylor has since gone on to marry yet again — to an ordinary blue-collar construction worker who helped her win her battle against drugs and alcohol (shades of the poor woodcutter's son from the Brothers Grimm, whose heroism wins him the

hand of the beautiful princess!), and laudably has raised great sums of money for the fight against AIDS. Her status as dowager empress of the tabloids seems assured.

It is pleasing to think that if Helen of Troy's life had been chronicled past the Trojan War, she would have achieved a similar peace with herself. The flashy entitlements of celebrity are a fate befitting all fading fertility goddesses.

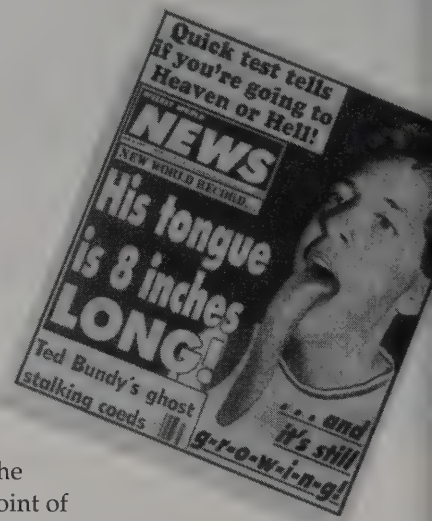
Elizabeth Taylor's life story is an iconographic essay of our times, with intimate pix of all its changing attitudes.

**W**hy read the tabloids?

Well, they're incredibly entertaining, for one thing. If Shakespeare were alive today, he'd probably be working for the *National Enquirer*, and Aeschylus would be an associate producer for Geraldo Rivera. The format of afternoon talk shows invites derision from sophisticated social critics (who decry a venue in which variously maladjusted individuals parade their dysfunctions in front of a live studio audience), but their effect is not unlike that of Greek tragedies. Look at Atreus, Agamemnon and Orestes — now there's a model family for you! *Parents Who Serve Their Children As Entrees and the Gods Who Love Them Too Much!* Tomorrow! On "Geraldo"!

The point of Greek tragedy, afternoon talk shows, and tabloids alike is audience catharsis. It is the point of all high drama. And it is a rather sophisticated form of entertainment, one that values irony above suspense because there is always a measure of disbelief to be overcome, the little voice inside that whispers, "I can't believe he's doing that. He should know better!"

Tabloids are also a reliable barometer of cultural change. Rock Hudson was a tabloid Prince Charming, every woman's dream, despite his widely known secret life. While tabloids and movie magazines might occasionally "out" a lesser star, Hudson's box office rendered him immune to embarrassing disclosures. Then came AIDS. One can imagine the dilemma: how were the tabloids





**Amazing discovery:**  
**Half-man,  
 half-frog  
 found in  
 Amazon jungle**



ARTIST'S sketch of frogman

MANAUS, Brazil — A human frog

education. Arguably, God is a myth; arguably, so is causality. Some of us watch "Star Trek." Some of us live on the Internet.

Myself, each week when I cash my paycheck, I walk around the corner from the automated teller to a shabby liquor store where I cruise the racks of magazines and pick the tabloids with the juiciest headlines. The clerk behind the counter eyes me nervously. "Sure you don't want a bag for those?" he offers. "No thanks," I say. And carry my mythos proudly into the world for all to see. ☺

to report Hudson's illness without also disclosing his heretofore unacceptable lifestyle? By making that lifestyle acceptable, of course. This presaged the beginning of mainstream America's acceptance of homosexuality. By the time Raymond Burr died — another well-loved celebrity, often covered in the tabloids — the transformation was complete. Gay was no longer an issue.

The tabloids are a valuable tool in helping America come to terms with itself.

In the end, it all comes back to myth again, to characters larger than life. What culture is without its myths? And in modern culture, how do we access those myths? Perhaps we do so unknowingly. Some of us are lucky enough to acquire a portfolio of icons through religion or science or

# GNAWS!



By **YAKG ALEXANDER**  
Staff writer

**Monster beaver turning Illinois town into sawdust!**

ARTIST'S conception of the bigger-than-life creature gnawing his way through Moline, Ill.

**MOLINE, ILL. — A barly, bigger-than-life beaver** is eating this Mississippi River city.

Ness monster. "His ferocious appetite could wipe us off the map." "He's been living under the

and caused about \$1,000 damage overall.

(or when they develop their film. And the brainy beaver has twice escaped traps.

has twice escaped traps.

...has to show to capture



# Making the Price of Technology Visible

By HOWARD RHEINGOLD

The most important part of any technology, more often than not, turns out to be invisible. If you could peer through magical spectacles that would reveal the parts of aluminum cans that you normally don't see, for example, you would perceive lines of force connecting the contents of your refrigerator to global geopolitical conflicts.

When I pop open an aluminum can, it hardly ever occurs to me to think about the working conditions in the West Indies (bauxite is mined in Jamaica), or the costs of rejecting nuclear power in favor of other energy-producing technologies (if the energy used to manufacture cans doesn't come from a nuclear reactor, it comes from one fossil fuel or another or from a dammed river). An aluminum can affects and is affected by the cost-effectiveness of truck tires (which translates to miles-per-gallon-per-pound of cans) and the price of petroleum needed to transport all the ore, refined metal, and end-products around the world. Aluminum begins with someone digging ore out of the earth, but the most expensive component of a can is the energy required to extract, process, manufacture, and transport it to your hand.

Profits and benefits from new technologies like aluminum foil and aluminum aircraft are visible, but costs and delayed or distant effects are invisible. What we need badly right now is a way for more people to see, understand, and decide collectively, through our discussions and our buying and voting decisions, exactly which trade-offs we are willing to make in return for technological conveniences. It's not my business to tell you which trade-off you ought to commit yourself to, but I do believe we all need to find out more about the trade-offs we are making without our knowledge. We need to find ways to make the invisible parts of technology more visible.

I agree with the neo-Luddites that our civilization took a bad turn a couple centuries ago when we created an industrial-technological revolution and turned it loose on the biosphere without regard to the consequences. I disagree with many of them when it comes to the tricky proposition of using technology to manage the consequences of technology. While an endless addictive quest for a "technological fix" is not the answer, neither, I believe, is a rejection of the very technologies we are going to need in years to come a useful response. We need the best tools we can muster to manage the world of energy-consuming billions we've inherited. We can't discard our tools, despite their evident defects, because we need them for our very survival. At the same time, for the same reason, we must understand the dangers of depending too heavily on the instruments that have created many of the problems we face.

How do we find new modes of perceiving technology, new ways to think about, design, and use tools? How can we develop more conscious means for democratic societies to make decisions about technologies? The next step beyond access to tools is access to understanding how to use them. In what directions does that step proceed? How do we start learning to look at the world of technology, and our places in it, in new ways? Before we can hope to achieve answers, we must elevate the level of discourse from an argument between tree-huggers and nuke-lovers. The world is more complicated than that. We need richer, more widespread, less simplistically polarized discourse about technology and social issues, because that is the only kind of environment where viable solutions are likely to emerge. 🌱

## Who Owns Information?

In our rush to embrace many of the democratizing benefits of new communications technologies, information-age enthusiasts have been overlooking some of the human problems that loom in our future as the result of the same technologies. The old agreements that made possible fundamental social contracts about privacy, property, ownership, and censorship have been rendered obsolete by fiber-optic cables and microprocessors. Tricks that used to be physically difficult to do, like reproducing an image, altering it, and sending it to millions of locations around the world, can be accomplished today in a few keystrokes. Technologies that used to be restricted to governments and large corporations, such as the tools to process vast amounts of public information in order to maintain personal dossiers on hundreds of millions people, are now available to small businesses. Battles are beginning to break out over who owns your telephone number, whether your boss can snoop on your email, and dozens of other social issues that result from the collision of real lives and new technologies.

Anne Wells Branscomb, a communications and computer lawyer and policy analyst based at Harvard's John F. Kennedy School of Government, tackles all these issues in her new book, and asks all the questions techies have been reluctant to confront. Most importantly for general readers, Branscomb takes neither a legalistic nor technical approach. She brings human interest to abstract issues via case histories that show how the technicalities play out in daily life and business.

Citizens have a great deal to gain in understanding how much we stand to lose in future power shifts triggered by today's technologies. The most crucial legal and legislative decisions governing these power shifts have yet to be made. What we know and say right now about the future of our rights and responsibilities in cyberspace will significantly shape social policies.

Read this book. Talk with your friends about the issues it raises. Getting the answers is not as important as raising the questions. —HLR

• More disturbing than disclosure of the telephone number alone and its minor inconveniences is the disclosure of information that

is generated by use of the telephone number. Concerns of telephone subscribers include: listings in the white pages, which usually print the address as well as the telephone number; records of calls made by an originating number; records of calls received by automated number identification in institutions such as police stations, emergency services, and fire departments; and information concerning the length of calls, repeat calls to the same number, concentrations of geographic contact, the amount spent for telephone calls, or the number of calls placed to 800 or 900 numbers. The value of such information, called Transaction-Generated Information (TGI), is high and accelerating. Justice William Douglas once warned that a person could be defined by the checks he wrote, as they would disclose "a fairly accurate account of his religion, ideology, opinions and interests." The use of the telephone number may be even more defining.

Regulation of TGI is a legal nightmare waiting to happen. The more computer networks that come on line, the more likely is the public to become aware of how their personal data is being gathered and used for business interests. With this awareness will come a greater demand for more personal autonomy over such information.

### Who Owns Information?

(From Privacy to Public Access)  
Anne Wells Branscomb. Basic Books, 1994; 320 pp. ISBN 0-465-09175-X  
\$25 (\$27.75 postpaid) from HarperCollins Publishers/Direct Mail, PO Box 588, Dunmore, PA 18512; 800/331-3761



In Massachusetts, several forward-looking companies are merging office computer work stations with exercise room equipment.

## A Tremendous Canada of Light

Here's a fine rant from one who is as passionately committed to an unreconciled-yet-together Canada as only a liberal Canadian anglophone can be. B. W. Powe embraces the noisy, interminable communication, discommunication and miscommunication of Canadian politics, and sees here a global model for nations-in-becoming.

Geopolitically, Canada can be seen to lie somewhere between the United States and Bosnia. Canadians never had a civil war. They never wiped out their native populations. They never committed a horror so great that it could unite them all. So aboriginals, Quebecois, other nationals, and Anglo-Saxons all still feel uneasily jammed together in this immense country.

In Powe's view, it is distance and differentness that contain Canadians, and it is brouhaha, rather than resolution, that defines Canadian-ness. Alexander Graham Bell, Thomas Watson and Guglielmo Marconi, all of whom worked in Canada, enabled Canadians to argue over great distances. Somewhere between the emerging homogeneity of global culture and the tribal wars of culturally threatened peoples, Canadians may offer an "alternative current."

The four essays that make up this book speak of how communications technologies can enable nation building. More importantly, Powe's writing conveys the depth of passion required to do the job.

—Paul Belsere

• We must remember that the Canadian experiment was in part inspired by fear of the American Civil War and of the Fenian raids of the mid-1860s. Aware of the carnage to the south, alarmed by the restive military power of the victorious union, Canadian politicians met to conceive of a different kind of state.

### A Tremendous Canada of Light

B. W. Powe. Coach House Press, Toronto, 1993; 124 pp. ISBN 0-88910-415-8  
\$21.95 postpaid by certified check or US postal money order. Longhouse Bookshop, 497 Bloor Street W., Toronto, Ontario, M5S 1Y2, Canada; 416/921-9995, fax 416/921-8614





## Media Studies Journal

If "Seizing the Media" defines the anarchist end of the media-critique political spectrum, *Media Studies Journal* is on the skeptical but Establishment-academic end of the spectrum. This quarterly scholarly journal is sponsored by the Freedom Forum Media Studies Center, which is funded by Gannett (*USA Today*). The opinions in the journal appear to be unaffected by the source of the funding, but it's worth keeping in mind.

The winter 1994 issue asks good, probing, skeptical questions about the social impact of the "information superhighway." The focus is "The Race for Content" — in other words, what kind of intellectual discourse or mindless entertainment is going to travel on this new communications conduit that the government and communications industrialists and technological enthusiasts such as myself are so excited about?

Minor disclaimer: One of the contributors to this issue, Steven Levy, mentions my own book favorably in his piece. I didn't get to that mention until I had read enough of the journal to be impressed by it. Others in this issue take a distinctly dystopian stance on "electronic democracy" and "virtual communities," however. —HLR



The "community" of television.

• What would an ideal mass communication system be like if we were inventing it from scratch? I would want it to have the following attributes:  
*Freedom.* It should permit the expression and examination of every human impulse, experience and belief without censorship.  
*Range and Variety.* It should cover the spectrum of tastes and interests, with the widest possible number of choices in every sector.  
*Balance.* Amid the steady output of entertainment, it should allow information to find an appropriate place and ensure that there are multiple sources of information and opinion.  
*Innovativeness.* It should permit a constant infusion of new ideas, styles, and

### Media Studies Journal

Everette E. Dennis & Edward C. Pease, Editors.  
\$32/year (4 issues). Columbia University,  
2950 Broadway, New York, NY 10027

formats (not just variations on old ideas), and give them a chance to attract a following.  
*Competitiveness.* It should be structured to encourage entrepreneurship and discourage monopoly both in delivery methods and in content.

*Accessibility.* It should be available to all, rich and poor. (This might mean expanding the functions of public libraries.)

*Quality.* It should be guided by standards of excellence in conception and execution, without suppressing expressions that fall short of them.



Mind of the public.

## Seizing the Media

Q: What is the opposite of manufacturing consent?

A. Seizing the Media!

The old radical American tradition of pamphleteering is alive and wild in the Open Magazine Pamphlet Series ("Culture Jamming," *WER* #82).

The Immediast Underground advocates media literacy, media critique, media subversion, media liberation. "Revolution is the overthrow of government; our aim is to overthrow the media." Their weapons are humor, knowledge, deconstruction, and a focus on the real sources of power in the information age.

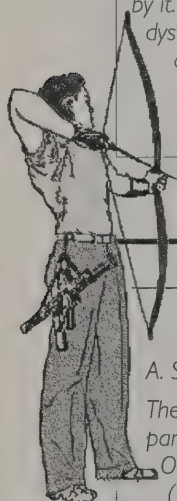
The Immediast movement is global, with hotbeds in New York, Oxford, and Amsterdam. With the technology-triggered disintermediation of traditional media gatekeepers destabilizing

communication control structures everywhere, gangs of teenagers with minicams and coalitions of counter-propagandists with computer BBSS can be far more effective than old-style guerrillas with AK-47s. This insurrection is not only nonviolent, it has a sense of humor. —HLR

■ American Indian philosophy teaches us balance. But given our daily exposure to a barrage of persuasive messages, monologues, sales pitches, come-ons, and uninformative hyper-sensational news, common sense and clarity are tough enough a struggle to maintain.

We can each see how extended exposure to television and mass media dulls people with a sense of numbness and nausea. From every public space a monologue of coercion penetrates our senses and rapes

our attention. Wherever we look, wherever we listen, where ever we go: the pornography of billboards, bus side placards, subway cards, glaring storefront signs and displays, the glut of junk mail, stupid fly-by beach planes and blimps, coupons, obnoxious bumper stickers and breast pins, embarrassing service uniforms, plastic banners and ribbons, absurd parades, street corner handouts, windshield wiper flyers, matchbook ads, business cards, screaming radios, the daily papers, every nanosecond of television, the package wrapped around everything we buy — from the label in our underwear to the robot computer that calls us in our homes — only the upper atmosphere and the ocean floor offer any sanctuary from America's ecology of coercion. And at every turn the monologues drone on, imbedding the psychological mutagens that coax us to become pathetic customers and unquestioning flag wavers. At every turn, we are under subtle attack.



Methods of the media.



## Media Events

Anthropologists Daniel Dayan and Elihu Katz zero in on the most spectacular tribal rites of today's global media-cult — those mass, spontaneous, instantaneous television events that cut through the ordinary dimension of media programming to transport a fifth of the world's population to a state of shared imagery and high drama. JFK's funeral was the first such media event that achieved truly mythic proportions, acting as a symbolic and cathartic ritual in the same ways the dramas about the lives of the gods enthralled and imprinted the ancient Greeks. Since then, we've had Sadat's trip to Israel, Armstrong's step on the moon, papal tours, "We Are the World," Olympics (and terrorist attacks at Olympics), Royal Weddings, and one of the most potent of the regular media rituals, the Oscars.

Dayan and Katz claim that media events break out of the simple realm of electronic entertainment into the numinous mind-space where societies decide who they are, because these events "interrupt the rhythm and focus of people's lives"; "transform the ordinary roles of viewers, causing them to assume the roles proposed by the script"; "give new status to the living room"; promote "utopian openness to alternative possibilities"; "create an upsurge of fellow feeling"; "connect center and periphery"; offer moments of "mechanical solidarity"; "have the power

to redefine the boundaries of societies"; offer a "cathartic experience for viewers"; and evoke empathy among peoples by "sharing another nation's feelings."

Media events hold some keys to understanding what humans are turning themselves into. Have TV global mindmelds (presidential funerals, Olympics, etc.) indoctrinated us in a kind of global culture so successfully that we don't even think of these rites as ceremonies of transformation? Does Elvis equal Zeus and did it really matter whether Armstrong actually stepped on the moon? —HLR

• This book is about the festive viewing of television. It is about those historic occasions — mostly occasions of state — that are televised as they take place and transfix a nation or the world. They include epic contests of politics and sports, charismatic missions, and the rites of passage of the great — what we call Contests, Conquests, and Coronations. In spite of the differences among them, events such as the Olympic games, Anwar el-Sadat's journey to Jerusalem, and the funeral of John F. Kennedy have given shape to a new narrative genre that employs the unique potential of the electronic media to command attention universally and simultaneously in order to tell a primordial story about current affairs. These are events that hang a halo over the television set and transform the viewing experience.

• Are media events, then, electronic incarnations of the staged events of revolutionary regimes and latter-day versions of the mass rallies of fascism? We think not, even if they might seem to be. It is true that media events find society in a vulnerable state as far as indoctrination is concerned: divided into nuclear cells of family and friends, disconnected from the institutions of work and voluntary association, eyes and ears focused on the monopolistic message of the center, hearts prepared with room. This is reminiscent, mutatis mutandis, of the social structure of a disaster that strikes at night, or of a brainwashing regimen. The threshold of suggestibility is at its lowest the more isolated the individual is from others, the more accessible he or she is to the media, the more dependent the person is, the more the power to reward conformity or punish deviation is in the hands of the communicator.



### Media Events

Daniel Dayan & Elihu Katz. 1992; 306 pp. ISBN 0-674-55956-8 \$19.95 (\$18.95 postpaid) from Harvard University Press/Customer Service, 79 Garden Street, Cambridge, MA 02138; 800/448-2242

- **Immediat Call for a Public Information Infrastructure**
- 0. Strengthening our public library system. Electronic linking of all free libraries to the Library of Congress and each other.
- 1. Introducing media literacy programs into the public school system. Teaching kids to decode deceptive, disinforming, and subliminal media exposures.
- 2. Public discussion of corporate damage to democracy and public culture. Organizing counter-commercial Centers and networks for the separation of corporation, media, and state.
- 3. Community resistance to corporate infiltration of public space, education, media, and information resources. Internet proclaimed non-commercial zone, public domain.
- 4. Reclaiming public sovereignty of the airwaves. FCC Director becomes an electable public official. Media politics become open public policy.



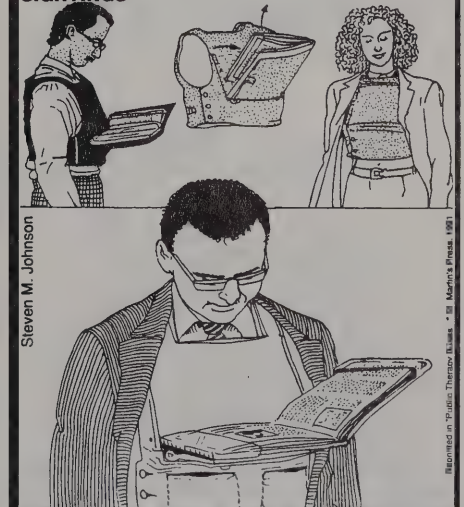
### Seizing the Media

Immediat Underground.  
\$4 postpaid from Open Magazine Pamphlet Series, PO Box 2726, Westfield, NJ 07091; 908/789-9608

- 5. The liberation of all public space from political, military, corporate, and business messages. Public takeover of all airborne commercial broadcast media and the creation of public production libraries.
- 6. Coordination of Public Intelligence Networks, public production libraries, the Internet, and national public media into a Public Information Infrastructure (PII).

### SIGHTINGS

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Keep Up Inc.'s "magazine rack vest" holds one or two issues of a favorite magazine or journal. In San Francisco, office workers open them during lulls in staff meetings or in employee restrooms.



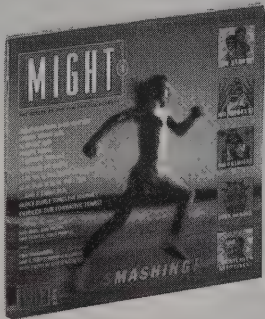




## Might

Funny, thoughtful and substantial, this new magazine gives the mass media's generalizations about twenty-nothings a big, magazine-length raspberry; twenty-nothings aren't necessarily all out slackin', its writers say. They're actually often out doing some good. Here's proof.

The first issue of **Might** has got a lot that's encouraging and useful for those interested in making change: instructions for becoming a radio pirate, a piece about activist rap, information and resources on alternative careers. And it's got a lot that's weird and pretty funny: a visit to the Burning Man Festival in Nevada's Black Rock Desert, an account of a \$1,000 expenditure on late-night infomercial offers, and wage enslavement through turkey farming and liquor store clerking. It's all presented in a clean, elegant black-and-white design. —Lisa Winer



### Might

David Eggers, David Moodie, Marny Requa & Flagg Taylor, Editors.  
\$20/year (6 issues) from Gigantic Publishing,  
544 Second Street, San Francisco, CA 94107

This one's as good as black-and-white design with a Macintosh gets. —JS

### Environmental Policy & Law

Smaller non-profit policy groups are becoming more and more specialized. "These are the groups that really need people," noted Andrew Art, analyst for the Environmental Working Group, Washington, D.C. They often devote their time to a particular issue and work closely with the community action groups. "The pesticide, toxic chemical area is expanding and increasing their focus," said Art. Unfortunately, these smaller groups are often financially unstable. For those interested in policy, these groups allow you to expand your knowledge of a particular issue quickly.

Art suggests an unorthodox job hunting method: research any and all organizations which interest you, write letters to them — even if there is no job advertised — and tailor your interests and skills to what they're trying to accomplish.

### 20/20 Vision

1828 Jefferson Place  
Washington, D.C. 20036  
Tel. (202)833-2020  
Fax. (202)833-5307

Interns assist the staff with the following activities: tracking legislation and providing information for grassroots organizations; attending lobby and strategy sessions; writing monthly legislative updates for activists; attending Congressional hearings; tracking media and political journals; and assisting with office responsibilities. Internships are usually 3 months long, but are not always paid. Send cover letter and resume. Contact: Robin Caiola, Legislative Director

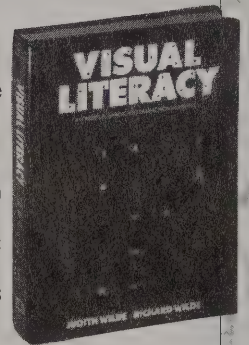
## Visual Literacy



This book presents the assignments and results of a semester course in Design. The class teaches students to develop multiple alternative design solutions to problems. In each exercise, the student is given simple design constraints and a format for presentation. The results, shown as a thousand illustrations, demonstrate that the human ability to innovate is expanded by rigid conditions. —JS

Each assignment, or *problem*, is carefully structured to create conditions conducive to discovering the language of graphic design. These conditions encourage exploration of visual communication concepts and design principles, allowing students to develop more personally expressive ways of solving communication problems.

Under this instructive approach, personal, intuitive concepts are stressed over specific technical skills. These skills and techniques needed to execute the assignments are not taught; they must be developed, through involvement with the problems. This interactive approach is ideally suited to the world of graphic design — a world of dynamic concepts and ever-changing ideas.



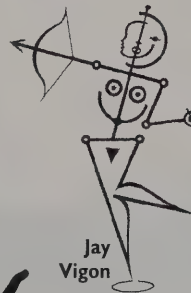
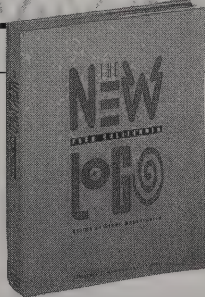
### Visual Literacy

Richard Wilde & Judith Wilde. 1991;  
192 pp. ISBN 0-8230-5619-8  
\$45 (\$47 postpaid) from Watson-Guptill  
Publications, 1695 Oak Street, Lakewood,  
NJ 08701; 908/363-4511

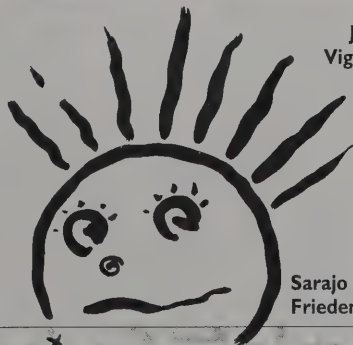
## The New Logo

Trademarks and symbols are short cuts to recognition. They may carry a message or they may be pure form — a clever shape by which to identify a company.

The **New Logo** highlights recent pictograms and wordmarks from California. The selections emphasize movement and whimsical execution. The work is brash and fun, and includes some surprising new typography. —S. Gutermuth

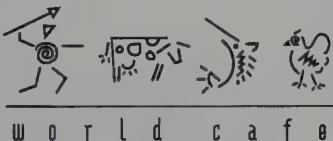


Jay  
Vigon



Sarajo  
Frieden

Susan Rogers



world cafe

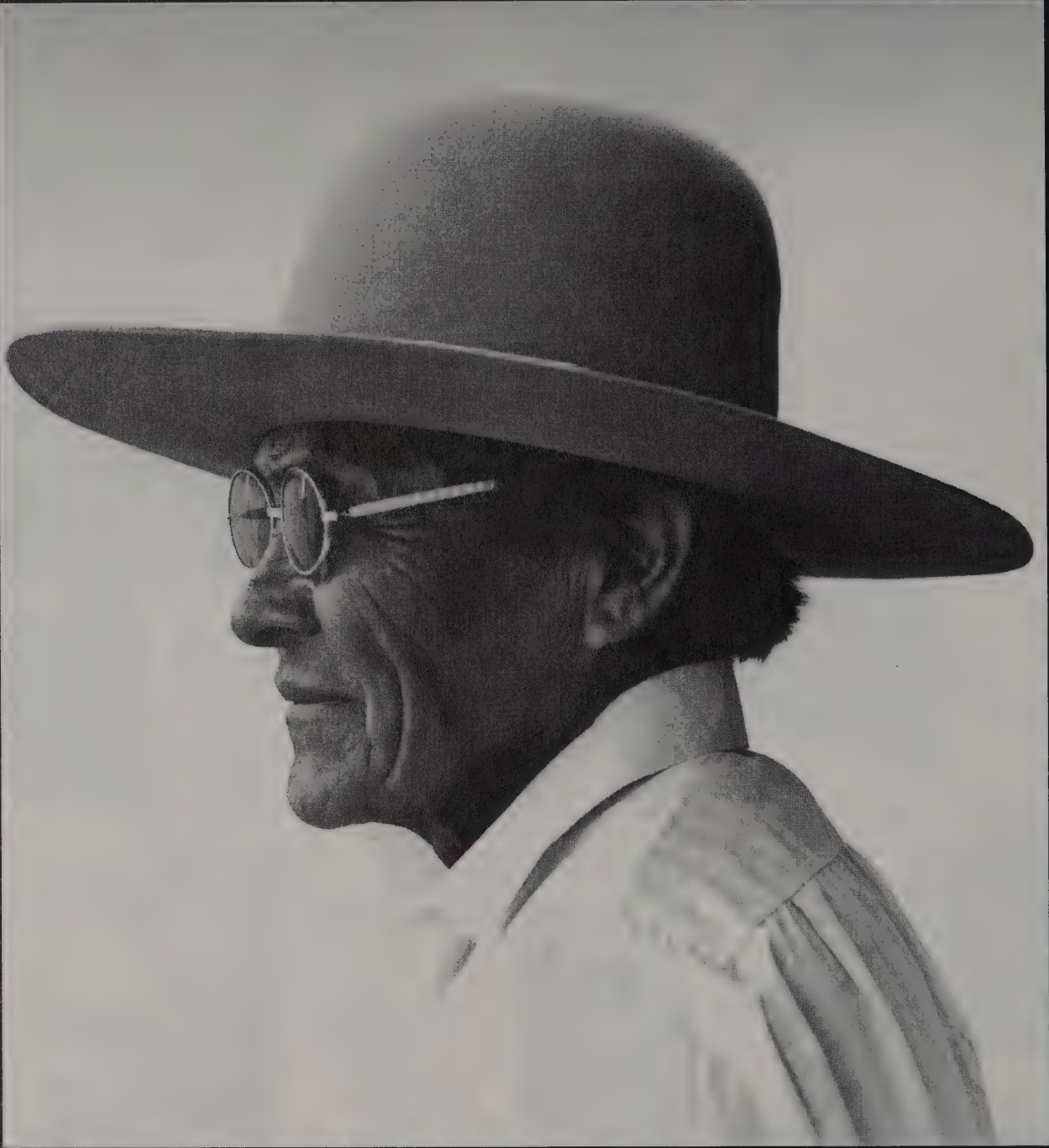


Paul Curtin

### The New Logo

Gerry Rosentsweig. 1993; 212 pp.  
ISBN 0-942604-28-8  
\$37.50 (\$41.50 postpaid) from  
Madison Square Press, 10 E. 23rd Street,  
New York, NY 10010; 212/505-0950







# Slow-Motion Explosion:

## The Exponential Spread of Exotic Species

BY DAVID SCHNEIDER

*For a truly successful species invasion, a degraded ecosystem is best.*

# S

OME OF THE BEST BOTANICAL MINDS in the country convened recently to discuss a dirty business: invasive non-native plants and how to kill them. Such plants are also called non-indigenous species (NIS), noxious vegetation, or plain old really horrible weeds. The symposium was convened by the California Exotic Pest Plant Council (CalEPPC).

Given the sorts of problems facing the planet and its inhabitants these days, weeds might not seem like a big deal. Ozone depletion, global warming, overpopulation, toxic wastes, nuclear weapons — these are the big issues, equivalent perhaps to self-inflicted strangulation or gunshot wounds to the body of the earth. By comparison, the movements of alien species of plants, animals, and microbes hardly seem worthy of notice. But they are much more like tooth decay (or, some would say, cancer), developing slowly over a long period of time. One day they emerge as a crisis — painful and expensive and potentially insoluble. Untreated, they threaten and then destroy entire systems.

What is a non-indigenous species, and what exactly makes it “invasive”?

Plants and animals are assumed to have a place of origin, a locus in which they fit as part of an ecological web. When a species wanders beyond the bounds of its original system and finds residence in another ecosystem, it is regarded as “non-native.”

If the second system is similar to the first, an alien species may adapt well to conditions in its new home, and compete successfully with native species for available resources. In fact, non-native species often have a distinct advantage over natives, in that they don't have predators in the new system.

The theory runs that plants and animals not only evolve in a particular system, they *coevolve* in that system with other species. In an uncontaminated ecosystem, as elsewhere, there is no such thing as a free lunch; more importantly, in such a system, every species literally *is* another species' lunch. When a species is introduced into a new system, however, there may not be anything eating it for a while. Without predation to keep it in check, the new species may multiply rapidly and overrun the locals.

Because ecology is complex and interconnected, the alterations invasive species make to a system are not always obvious, nor are they predictable. Beyond changing the look and sounds of an area, alien species can fundamentally alter the supply of resources and the movement of the elements. Plants that drink a lot of water — like the Eurasian salt cedar or tamarisk (*Tamarix chinensis*), which absorbs about 200 gallons per day — can seriously draw down the water table, eliminating ponds and streams, as well as the insects and animals that depend upon them. Such plants can bring up and deposit new sets of chemicals on the surface of the soil, thus fundamentally changing its composition, and the very shape of the land can be radically altered by new courses of erosion resulting from exotic vegetation. The established natural patterns of fire — its frequency and ferocity — are also redirected

David Schneider, the author of *Street Zen (Shambhala, 1993)*, returns to his roots. —JS



by the dominance of a new type of vegetation, as dramatically demonstrated by the role of the Australian eucalyptus in the Oakland Hills inferno of 1992.

**R**IGHT NOW every American state in the contiguous forty-eight suffers a problem with invasive species of plants and animals. The discussion of "suffering" is from a purely human perspective at this point, and what it really means is that invasive species are costing people a lot of money — so much money, in fact, that the federal government has taken notice of the problem, and issued a rather grim report through its Office of Technology Assessment (OTA). The report, *Harmful Non-Indigenous Species in the United States*, conservatively estimates that the US economy has lost billions of dollars.

Information is still sketchy, but it is widely agreed the costs will only rise. "A worst-case scenario for fifteen potential high-impact NIS puts forth another \$134 billion in future economic losses. The figures represent only a part of the total documented and possible costs — they do not include a large number of species known to be costly but for which little or no economic data were available, e.g., non-indigenous agricultural weeds. Nor do they account for intangible, nonmarket impacts."

Some non-native species are famous: the Africanized "killer bees" (*Apis mellifera scutellata*), now entering the US southwest; kudzu (*Pueraria lobata*) strangling hill and dale from Florida to Pennsylvania; the zebra mussel (*Dreissena polymorpha*), clogging waterways in and around the Great Lakes (and as a result of the great floods of 1993, the upper Mississippi River as well). Problems surrounding treatment of the "med-fly" (Mediterranean fruit fly, *Ceratitidis capitata*) are even

thought to have forced a California governor from office.

Other alien species are less well known, but equally devastating. A ranching family in southern Oregon, for instance, abandoned a 10,000 acre spread recently because the land had become infested with leafy spurge (*Euphorbia esula*). A particularly vigorous weed — it can germinate from eight feet below the ground — spurge can make cultivation of land impossible, it's noxious to livestock, and no one yet knows for sure how to get rid of it. Some early results of experiments with biological control seem promising, but these will take some time to develop.

On public lands as well, where the business at hand is neither agriculture nor industry, but preservation and recreation, invasive species cost money. Everglades National Park spent \$16,500 an acre eliminating Christmas berry (*Schinus terebinthifolius*) from a 60-acre site, and *Melaleuca quinquernervia*, an invasive Australian tree, is spreading there at an average of 41 acres per day.<sup>1</sup>

The Bureau of Land Management estimates that it loses 2,300 acres per day to weeds on BLM land alone. In a real way, such invasions corrode the very reasons for having park lands.

Compounding the invasive species problem is the quality and quantity of information on the subject. The OTA report counts at least twenty federal agencies dealing with some part of the NIS problem. But at the federal level (and this is true as well at the state level) communication between agencies is incomplete, and reaction is disorganized. For one thing, plants and animals do not recognize human-imposed bor-

1. D'Antonio, Carla & Dudley, Tom L., "Alien Species," *Pacific Discovery*, Summer 1993, Volume 46, #3.



Whitetop. *Cadaria draba*

Photo from *Weeds of the West*

Whitetop spread across a field. Right.

Photo by Jerry Archer, BLM

ders, or agency divisions. States' standards for importation of species also vary wildly, and enforcement of such laws as do exist is spotty at best. In summary, no coordinated legislative response to the problem exists yet, and the governmental efforts that are in place are admittedly ineffectual. Even the formation of grassroots (no pun intended) citizen's groups lags behind. At this writing, only five or so states can boast groups like CalEPPC.

## History

Given the current dismal state of affairs, one might reasonably ask how things got this way. Plant and animal species have traveled the globe from their beginnings, colonizing whatever territory they could, but it was not an easy business. Natural barriers isolated ecosystems from one another, and created highly specific local conditions. Currents of wind and water, the shifting of land masses,



and vast cyclic migrations have for most of the world's history been all the transportation there was for living forms. The advent of human beings has accelerated the process of invasion enormously and selectively.

As humans themselves have spread out over the planet they've tended to take with them the plants and animals they knew and loved — principally, species of economic value. The current problems with invasive species in the US can be traced largely to their importation by European and Asian immigrants over the past four hundred to five hundred years. A particular set of weeds, the plantains (*Plantago*), were called "White Man's Footstep" by Native Americans because the weeds so directly followed habitation of land by Europeans.

Not all imports have been bad news: wheat, soybeans and cattle are often cited as examples of suc-

cessful species transplantation (although when considering more than simple dollar amounts, the benevolence of their impact is highly questionable.)

Sometimes a species brought in escapes its original confines — jumps the fence, so to speak, and multiplies. Pesky garden snails are a good example, established in this country repeatedly by people who had only culinary plans in mind. Starlings, a pervasive bird here, were supposedly brought to New York by an adventurous entrepreneur in for a Shakespeare festival near the turn of the century. The legend is that the man wanted all the birds the bard mentioned on hand. After the shows, the starlings took off and multiplied. In fact, several attempts to introduce the birds into the US were made, but the story is instructive: starlings now inhabit every part of the country and have forced native species out of their habitats.

It is the same with plants. An overwhelming number of species now considered to be dangerous noxious weeds have been available in seed catalogues, and continue to be. Scotch broom, for instance (*Cytisus scoparius*), runs rampant on the West Coast, and is classified by concerned folks as one of the most important wildland weeds to control, yet you can still buy it cheaply at almost any nursery.

An impressive range of unintentional, or accidental, vectors for species movement also exists. In the days before extruded PVC peanuts, excelsior, or even wadded-up newspaper, people often packed their possessions in plant matter. When a traveler later unpacked and tossed the padding out back to rot, durable seeds would be free to travel on. Seeds also traveled well in the hooves, hairs, hides and stomachs of large animals like horses and cattle, creatures that were themselves



frequently transported long distances. Stowaway rodents and reptiles found their way to US shores on ships, then disembarked and spread out. With increased globalization of trade and transport today, the problem is ever more serious.

But even with dozens of alien species running loose, an invasion is not a foregone conclusion. The pressures of coevolution under a particular set of geologic and climatic conditions produce ecosystems that are delicately balanced, yet often (though not always) tough, and resistant to intrusion. For a truly successful species invasion, a degraded ecosystem is best.

Clearing land for urban, suburban or agricultural development, harvesting large tracts of forest for timber, heavy and repetitive grazing, monocultural crop rotation, cumulative use of fertilizers and pesticides, the damming of streams, fire suppression — any of these would qualify as damaging to an ecosystem, and would leave such a system impaired, vulnerable to attack.

## What Can Be Done

The OTA report and articles like this one are part of a dawning consciousness of the problems invasive species pose. One of the most important things to do, painful though it may be, is to increase awareness. This is because problems with NIS exist on so many levels, involve so many agencies and so many kinds of jurisdictions that blanket recommendations have little practical value. Quick understanding and a massive, widespread response offer what hope there is in working with invasive species.

This is not to say that legislative involvement is of no use. Governments at the federal, state, county, and local levels need explicit poli-



Habitat restoration volunteer Larry Ching hacks at pampas grass.

Photo by Greg Archbald

cies with regard to the movement, sale, and propagation of alien species, and the policies that are already in place — screening of imports at borders, for instance — need to be tightened considerably. The OTA report acknowl-

edges that although some laws are on the books, the gaps in the legal net are more impressive.

It is in tackling the actual problems of present-day invading species that the questions get truly prickly. The basic approach is to go out there, hunt them down, kill them, and make sure they don't come back. This is not always possible, and realistic workers often aim at simple containment. But as anyone knows who's volunteered under the inspiring flag of habitat restoration, you spend a lot of time killing things. It can feel a bit like biological racism: "This doesn't belong here. It should stay in its own place." When the physical work begins, the issues become even more poignant: squads of hunters fanning out to erase a population of feral pigs (as has been done with great success on some of California's Channel Islands, for instance) pits the habitat people against the animal rights people. And pigs are

## Weed Vandalism

The intentional release of damaging life forms is the stuff of science fiction, but few people know that it has happened — is happening — in the San Francisco Bay Area. One man has made a career of introducing invasive plants into public parks, both urban and wildland, at a staggering cost to managers and volunteers. The mix of species this man has chosen range from pretty but aggressive horticultural plants to the worst noxious weeds. Out of a *San Francisco Chronicle* interview with him came "a long list of grievances, including the inequities of capitalist society and the man's failure to be accepted for a park gardener's job twenty years ago."

I began intense surveillance of this man in 1988, feeding information to authorities and anyone who might be able to stop the planting. Their reactions broke down into four categories: denial: this can't be true so the messenger (me) must be crazy; trivialization: "It's just an old man planting flowers"; indignation for thirty

seconds, then forget about it; and action: counterattack by removing the plants.

This last reaction gave birth to Habitat Restoration Team (HRT) in the Golden Gate National Recreation Area. HRT has become a model volunteer organization for hands-on work in public lands. Although HRT volunteers cannot work in all affected lands, and have not been free from denial themselves, they have rolled back the worst offending plant in GGNRA and become a permanent nemesis to the planter. But as HRT began to have an effect, I watched the planter change his habits to plantings that are more difficult to detect.

The best time for an official investigation may be past. This man has committed the most expensive and far-reaching act of vandalism against parkland in US history, and done it so subtly that no one has arrested him even though they know, or should know, who is doing it. —Tom Ness

one thing, but what about deer? Or wild goats? Or cats?

In the plant realm, the questions are usually mostly practical — *how* to kill, rather than *if*. The use of herbicides triggered one of the hottest discussions of the CalEPPC symposium. Many of the participants — inveterate plant people — had only a few years ago fought the herbicide industry tooth and nail, on principle. Now lots of these same people just want better, safer chemicals. Not a universally adopted solution by any means, herbicides still present what one participant called “a cure better than the disease.”

Biological control of invasive species offers seductive prospects for cleaning up ecological messes, but it's also very tricky, usually involving the importation of another (potentially invasive) species. The testing and cross-checking that must be done before releasing one species to eradicate a second make the process time-consuming and expensive.

There are always the manual methods — pulling weeds and chopping trees. Teams form constantly around the country to rid an area of this or that invader. If the work is slow, it's still social and satisfying to participants, and ultimately quite effective. Without the cooperation of local people, few legislative or technological efforts can succeed.

Although this piece has focused mostly on the US, and mostly on the consequences of invasive species for humans, the problem can be seen from much broader perspectives. As invasive species move around the world, forcing less hardy natives to extinction, the world's gene pool is diminished. The full arguments for preserving biodiversity are outside the scope of this piece, and have already been made by several

brilliant scientists, E. O. Wilson most notably. The point is that with a reduced number of species, any system is more vulnerable to change — a climate change, for instance, or a change in the composition of the atmosphere.

In grappling with invasive species, it's important to remember that the plants and animals have done nothing wrong: they're simply carrying out their biological imperatives, using humans and human folly to spread, as they have used other methods in the past. It is we humans who have meddled most aggressively here, and as the plants and animals go silently to extinction, we must also face the drastic consequences. 🌱

#### Books:

Ecological Imperialism (The Biological Expansion of Europe, 900-1900): A. W. Crosby. 1986, Cambridge University Press.

The Ecology of Biological Invasions of North America and Hawaii: H. A. Mooney & J. A. Drake, Editors. 1986, Springer-Verlag, New York.

Harmful Non-Indigenous Species in the United States: U. S. Congress, Office of Technology Assessment. 1993, U. S. Government Printing Office. (A very good fifty-seven-page summary is also available free from OTA.)

Weeds and What They Tell: Ehrenfried E. Pfeiffer. 1950, Bio-Dynamic Farming & Gardening Association.

#### Articles:

D'Antonio, Carla & Dudley, Tom L., “Alien Species,” *Pacific Discovery*, Summer 1993, Volume 46, #3.

Devine, Robert, “Botanical Barbarians,” *Sierra*, Jan-Feb 1994. Volume 79, #1.

Mack, R. N., “1990 Catalogue of Woes,” *Natural History*, March 1990.



**Waldorf School children pulling Capeweed.**

**Photo by Greg Archbald**

#### How to Help

Contact one of the following EPPC (pronounced “epsie”) groups:

EPPC c/o Sandra Vardaman, Dade County Dept. of Parks and Recreation, Natural Areas Management, 22200 SW 137 Avenue, Goulds, FL 33170.

CalEPPC c/o Sally Davis, 448 Bello Street, Pismo Beach, CA 93449.

TenEPPC c/o Brian Bower, 4824 Torba Drive, Nashville, TN 37204.

PNWEPPC, 4409 SW Obsidian, Redmond, OR 97754.

You could also try your state's Native Plant Society; most states have them. For a list of these, contact California Native Plant Society, 1722 J Street, Sacramento, CA 95814; 916/447-2677. Or buy *The 1992 Plant Conservation Director* \$15. The Center for Plant Conservation, PO Box 299, St. Louis, MO 63166.

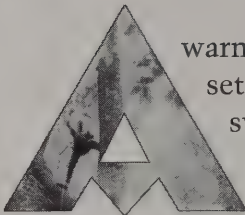
For electronic information on invasive species, look in the conference plants.exotic on the EcoNet, an environmental computer network that is part of the Institute for Global Communication: 18 De Boom Street, San Francisco, CA 94107; 415/442-0220; to sign up: 415/322-9289. Contact Steve Harris at [sharris@jgc.apc.org](mailto:sharris@jgc.apc.org)





Curtis Compton

# WAKING UP THE MONKEY



warm breeze picked up out of the sunset sky, setting our giant friend and host for the night swaying. Tons of living column yielded with each gust in a graceful metronome motion, smaller branches dancing to a faster beat and thousands of green needles whispering the chorus. Our peace of mind was perfect knowing that 145 feet below us her roots anchored her great mass to the earth exactly where her mother had dropped her seed several centuries ago.

THE DAWN OF RECREATIONAL  
TREE CLIMBING

BY TOM NESS

&

SOPHIA SPARKS

**Photography by Curtis Compton  
and Corky Gallo.**

*The first time I read this I hated it. Then I dreamed of trees as golden shafts of living protoplasm nurturing the life that ventured inside their leaves. The trees probably see us as an invasive species.*  
—JS

Our comfort was perfect, too, because of special hammocks called Treeboats. A full moon rose over the forest as we drifted off to sleep, savoring the curious sensation of being gently buffeted in a river of air. This was the arboreal paradise our ancestors had given up to walk out onto the grasslands of Africa.

Though humans haven't been arboreal for more than four million years, every parent knows that it takes a watchful eye to keep children from climbing anything they can get a hand-hold on. Our bodies are designed around the requirements of a tree-dwelling primate: opposable thumbs to grip

branches; fully rotatable shoulders to reach overhead; binocular vision to gauge the distance of leaps; color vision to find ripe fruit. Even our spinal column terminates in the remnant of a tail that once aided in balance and perhaps even in grasping.

Our wiring is as old as the trees, too. In American neonatal medicine, a human newborn is tested to assess its condition. One test for a healthy nervous system is to cradle the baby in two hands, and abruptly lower the hands an inch or two, effectively "dropping" the baby. A healthy baby thus "dropped" will fling out its arms



and legs to find support against a fall. This response, called the Moro reflex, is present in every healthy human throughout life. It is easy to imagine how this reflex to catch a branch to break a fatal fall would become a favored survival trait that persists in us today. In considering the remnant tree-dweller in all of us, anthropologist David Givens suggests that the nerve sensors in our hands may function like antennae which, in performing grasping and climbing activities, can engage the more primate reaches of the brain.

As kids, we know this in our bones, and our spirit drives us to climb. We clamber into a tree and feel at home perched above the ground. We have fun maneuvering among the branches, and the feeling of being free and wild in company with the tree fires our imagination. Until recently, tree climbing was left to children, or to adult specialists with a commercial or scientific reason to go aloft. Then things started changing.

Peter Jenkins is a former rock climber who put his rope skills to work trimming trees in Atlanta, Georgia. With a regularity that caught his attention, his clients would say something like, "Gee, that sure looks like fun. I wish I could try it." That was the inspiration for founding Tree Climbers International (TCI), a club to promote and teach tree climbing as recreation (*Tree Climber* newsletter, *WER* #59:25). Soon dozens of people were getting the opportunity to ascend into Atlanta's big hardwoods.

At the same time Peter was starting TCI in Atlanta, we were becoming aware of an itch to do more than look up at some of the giant trees we found on our hikes north of San Francisco. We wanted to climb the biggest, oldest trees in our region, and so started buying and making gear to give us that capability. (It would be dan-

gerous for a person with no background in technical climbing to do this. I grew up with a tree surgeon father who taught me commercial arborist techniques when I was ten. —TN)

Robert Fulghum's second book, *It Was on Fire When I Lay Down on It*, includes a story about climbing trees for the fun of it. At the end he gave an address for TCI, and the mail started to pour in. Thousands of people all over the country were saying "Yes! You too? I thought I was the only one!" Children said it was their favorite play. College students said they blew off steam between classes in campus trees. Housewives said not even their husband's disapproval could keep them on the ground. Retirees admitted to getting their daily exercise with a climb. A notable percentage of letters came from girls and women, some of them expressly recognizing climbing's boost to their self-esteem. Everyone was eager to learn more about who else was climbing and what techniques they were using. Fulghum's best-selling book found its way overseas, and letters coming in made it apparent that the same phenomenon was happening in other countries. Club of the Kudlacena Treeclimbers is active in the former Czechoslovakia. There is a Denmark club. Marc Douillet founded the climbing school Les Accro Branchés in France and in October '93 met with two of the four other French climbing groups to establish a national club. These are only the ones we've heard of. No one knows how many others may have sprouted in recent years.

The spontaneous expression of arboreal instinct shown by children and adults when they spot a climb-

able tree is called "free climbing" since it's done without equipment. Although this is the most natural and unfettered form of climbing, you can only go where remnant monkey\* skills can take you. And you're exposed to serious danger if you misjudge your skills. Technical climbing may load you down with equipment, but it gives you safe access to virtually the entire forest canopy.

Interest in canopy research in rainforests has led to innovations in climbing techniques. The scientists, not committed to traditional commercial arborist methods, were free to invent hybrid techniques drawing from the rich variety of rock climbing and caving equipment. Donald R. Perry became the best-known name in canopy research climbing after his methods were published in the cover story of the November 1984 *Scientific American*. But Perry himself cites William C. Denison of Oregon State University as the pioneer of these techniques. *Scientific American* published Denison's article "Life in Tall Trees" in June 1973.

Technical tree climbing has now diverged into two basic styles, tautline-hitch climbing and Single Rope Technique (SRT). Neither of these requires the use of spikes (also called spurs or gaffs), a widely held bit of misinformation. Some professional arborists keep a pair of spikes for tree removals or for rescuing an injured colleague, but spikes do create puncture wounds that open up a tree to fungus and insect pathogens. Pacific Northwest cone harvesters are spike climbers, but they are professionally closer to loggers than arborists. Any climber who knows and cares about trees doesn't use spikes.

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\* We like the playful connotations that surround the term "monkey," and use it here in discussing the arboreal drive in humans. We prefer it to the taxonomically correct "ape," which unfortunately is villified in dominant cultural usage.



Most professional tree trimmers use tautline-hitch climbing. This technique uses special arborist rope designed to work with a knot that slides up the rope when pushed up but holds when weighted, unless it is intentionally pulled down the rope for descent. It works well in typical urban trees where ascents are less than fifty feet or the climber is moving up and down a lot within the tree.

Single Rope Technique (SRT) uses a pair of ascending devices that slide up the rope easily but grip it with cams when weighted. These devices are fitted with straps that allow a climber to inchworm up the rope. Because the strength of the climber's legs is utilized better in this method, it works well in big trees with long ascents, and for climbers who lack a lot of upper body strength. Coming down is done on a rappel device like a figure eight.

Both techniques require getting the rope over a branch before starting the ascent. Most trees can be entered with a hand-thrown weight on the end of a light cord, which the climber then uses to pull up the rope. A good throw can fly over a branch up to seventy feet high; big trees with the lowest branch higher than that require other methods. Slingshots, crossbows, dog-training guns, and compressed-air guns are all being tried, but the most consistent success with the most readily available equipment is obtained with a fishing reel mounted on a bow. Whatever the method, it's the throwing that makes or breaks a climb. A person can climb a tree of average size with one throw from the ground and perhaps one more from within the tree, but a giant conifer may take many progressively higher throws to reach the summit branch. If you can't get your rope into the tree or over the next higher branch, that's where the climb stops.

Therein lies the biggest difference between rock climbing and tree climbing. Rock faces don't have convenient places to fix your rope above you before you climb higher. You must climb past your last protection and hope that you find the right hand and foot holds to reach the next point where protection can be placed; that you can place your next protection before your muscles give out with exhaustion; that if you do fall your last protection below you can withstand the shock. The thrill of that challenge and danger attracts thousands to the sport of rock climbing, but *Rock and Ice* magazine regularly prints obituaries. Most rock jocks would find the safety of tree climbing to be a yawn; most tree climbers would find a cliff a very unwelcoming environment. They are different people on different quests.

But "safer" is not the same as "risk-free," and no one should mistake tree climbing for the latter. Until recently Peter Jenkins could say that the worst casualty TCI ever experienced was blisters, although he did have some stories of close calls. Then in December '93, in Portland, Oregon, a climber came down on the wrong side of close.

Four climbing friends had gone to the top of a big Douglas fir for their traditional solstice sunset climb. Three were back on the ground. The fourth, in freezing weather and failing light, thought he had placed his flip line (a short secondary safety line used while moving the main rope) over a large branch when in fact it had gone over a one-inch sucker. It failed as soon as he put his weight on it, sending him 96 feet to the ground. In a four-second fall, he says, "the first second was denial, the next second was trying to grab something, and the final two seconds were spent trying to reposition for a better impact." Those last two

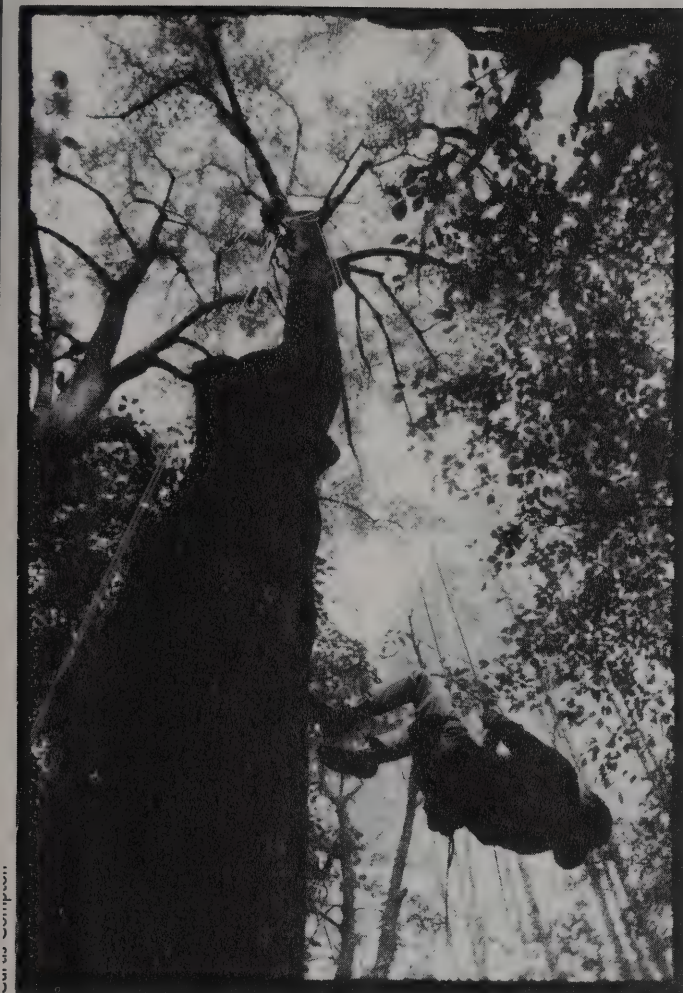
seconds were well spent, as he rotated out of his head-first position just in time to hit on a shoulder instead. He came out of it with a shattered wrist, bruised lung, hairline pelvis fracture, and two minor cervical vertebrae fractures with no nerve damage. By contrast, the city of Portland's lead urban forester fell about 15 feet at an International Society of Arboriculture climbing jamboree last year and was dead on the spot.

The climber who fell solstice day is a full-time professional, as are two of his companions. The fourth is an experienced canopy researcher. What tree climbing does share with rock climbing is the fact that a lapse of attention is the first thing to fear; errors of judgment run a close second. True equipment failures are quite rare. If a new climber gets instruction from a good teacher, uses quality equipment in good condition, uses prudent judgment, and *pays attention*, he or she can enjoy a lifetime of safe climbing.

Tree climbing can't be classed with the thrill sports, though it has its thrilling moments. Most moves take place only a little faster than a chess game, and the viewing angle is terrible for spectators' necks. It doesn't require an athletic body as much as optimism and will. The real reason to climb a tree is to be *with* the tree, to share its view of the world, its sense of time. Our idea of a successful climb is no more dramatic than to get comfortable up in the canopy and watch the shadows shift, see who lives up there, and maybe sleep awhile. Group climbs may not provide the quiet and solitude of going up with one friend or solo, but the people who gravitate toward tree climbing are some of the best you could hope to spend time with.

Tree time is alien to modern humans and can best be perceived from high within the tree.





Stephanie Kaza captures the feeling most eloquently in her book *The Attentive Heart*:

Being in a tree is not the same as sitting beside a tree or underneath one. Entering the space within the tree, I meet the tree on its own terms, subject to the conditions of its shape and history. I fit my body to the tree's body. I enter the web of tree relationships and slow down into tree time. No thoughts, no ideas, no direction, no anticipation. Just the breeze blowing over our shoulders, the silverfish scuttling over our bodies, the sun moving along, minute by minute cleansing the ragged mind.

The moment your feet leave the ground, you enter the tree's world. This threshold is invisible, but experiencing it teaches its profound effect on the psyche of a modern terrestrial human. The

firma — and every move thereafter. It is an act of faith for a novice to transfer their weight from the ground to the rope. Some beginners back down quickly, unable to make the transition. For the rest, the first pitch of climbing absorbs the novice's full attention as he or she works on mastering a new form of locomotion.

Arriving at the first branch, many new climbers balk at the prospect of transferring their weight once again, this time from the rope to the branch. It amounts to a second leap of faith, only this time the climber may be 50 feet above the familiar security of the ground. By now the beloved ground looks very different, and nausea may set in. Usually, once settled on the branch, new climbers regain composure and can feel the deep peace to be found in the crown of a tree.

paradox of our arboreal past is that in becoming terrestrial we acquired a healthy fear of heights. To return to the trees, we need to be weaned from the ground. On a first climb, the novice will trust the instructor to place the rope securely in the tree. "Would you hang your life on that?" is the question we always ask before making the first move to leave terra

But they may be surprised yet again when they face a third leap of faith: transferring from the branch back onto the rope when preparing for the rappel back to the ground. While some beginners have a zest for the altitude, others may require several climbs before the monkey mind kicks in and they are confident enough to relax in the upper reaches of a tree's body.

One of the keys to confidence aloft, besides technical proficiency with the equipment, is coming to understand the great strength and resiliency of trees. This allows them to defy gravity, windstorms, and snow loads for great spans of time. Part of a climber's education is learning to look for deadwood, to recognize a weak crotch, and to avoid placing leverage on branches less than a safe size, which varies from species to species. A good rule of thumb is that if it's skinny enough to make you nervous, you probably should be. A common survival tactic among trees is to intentionally leave their smallest branches weak so they can peel away in windstorms, effectively shortening sail before the mast breaks. But if the tree is not being severely stressed at the time you are adding your weight to it, the supporting architecture that has stood the test of time is worthy of your trust.

A debate has begun among tree climbers about what the effect would be if tree climbing became the next sport explosion. Rock climbers have watched their favorite cliffs get smeared with chalk, bolted, and littered. We have watched the invasion of our favorite peaceful hiking trails by packs of screaming gonzo speed demons on mountain bikes. Could the same thing happen to our favorite climbing grove?



We don't think so. All of the new sports that have experienced exponential growth (rock climbing, hang gliding, mountain biking, wind surfing, etc.) have involved speed, danger, or both. If large numbers of people suddenly wanted to disappear into the canopies of trees to experience the serenity to be found there, it would represent a remarkable cultural shift. We believe that the small effect recreational tree climbing might have on trees will be more than offset by the benefits. Trees move the people who climb them. We name them, have a personal relationship with them, like a lover. Our fondest hope is that climbing will create a larger and more dedicated voice for preserving old trees.

Most people are unaware of what an old tree is. Most of today's forests are so young they are like a "Twilight Zone" episode where you walk down a crowded city street and see no person over the age of ten. With rapid urban expansion and short-rotation logging, we rarely allow a tree to fulfill its genetic potential for lifespan. Although there are many fun climbs in our backyards and parks, there is a direct relationship between the age of a tree and its ability to provide a challenging climb along with that near-religious alteration in our perception of time. Our oldest trees become the holy grail for climbers.

The sugar pine that hosted our moonlit sleep lives on a hill six miles away from our home, where we can see it on the skyline. Counting rings on nearby stumps, we gauge that tree to be about three hundred years old. We live in fear that the next time we look up at the ridge it will be gone, sold by the Forest Service to make door trim.

If the government of Egypt sold off the pyramids to be broken into cobblestones, everyone would recognize what short-sighted fools they were, even though with enough money pyramids could be rebuilt in a few years. But the only way to replace a three hundred- or three thousand-year-old tree is to wait just that long. The grand old white pines of New England sailed off to be masts in the king's navy. The American chestnut, monarch of the eastern deciduous forest,

fell for long-since rotted railroad ties. Is a single house left with shingles on it made from the giant swamp cypresses of the southeast? The redwood decks of California will be in landfills centuries before their mother forests have recovered. Everything we make from wood (except fine art) will be gone long before the tree from which it was made can regenerate, so in the end we have neither the wood product nor the tree. We may as well start using alternative materials *now* rather than finish cutting down the last of our ancient trees in a hopeless bid to keep up with demand for wood.

The wellspring of reverence for trees lies deep in our primate past. Our habit of clearing forests and exploiting trees for fuel and wood has blinded us to their living value as our associates on the land. By reawakening our senses to our ancestral home in the trees, we revive ourselves and become impassioned to save the remaining old ones. The trees, meanwhile, will be waiting.



Corky Gallo

### Ness Climbgear

*As a long-time recreational tree climber addicted to the natural high of playing above the ground amid the nurturing energy of trees, I used to think about how nothing could top the fun and adventure I was having. Then I discovered the innovative climbing gear Tom Ness and Sophia Sparks were cooking up on the West Coast. Soon I was ascending and swinging through the branches with even more ease and ecstasy, thanks to a New Tribe climbing harness that is a tenth of the weight and triple the comfort of my old one.*

*But their biggest contribution to my tree-climbing wonder has been the Treeboat Hammock. All the natural intimacy I'd ever experienced in trees was multiplied exponentially the morning of my first tree camp, 90 feet up in a large white*

*oak leaning out over a fast-running stream. The rising sun stirred me from a deep, restful sleep induced by the gentle swaying of the big tree. Nearby, squirrels and birds eyed me curiously, and as I lay there peacefully absorbing the sounds and images, feeling completely protected in the forest canopy, I was able to at last taste the freedom experienced by the creatures who live in the wild.*

*Tom and Sophia live in the appreciative spirit of tree climbing, from which they are creating the inventive gear that is helping this ancient activity evolve into a new source of natural communion.*

—Tom Watson

### Ness Climbgear

Catalog free. New Tribe, 5517 Riverbanks Road, Grants Pass, OR 97527; 503/476-9492.



## EQUIPMENT SUPPLIERS

**New Tribe:** see review of Ness Climbgear.

**Zanika Sportswear:** Catalog free. PO Box 11943, Minneapolis, MN 55411; 612/529-1785.

*You can't take your pants down while wearing a climbing saddle. So what's a girl to do who wants to keep her saddle on and spend all day or all night in a tree? This sportswear for women hides a special zipper or pull-apart panels in the crotch, allowing you to relieve yourself without removing all your clothing. The twill pants are fine for climbing and come in many styles.*

## CLUB

**Tree Climbers International:** Membership \$20/year (includes quarterly newsletter) from PO Box 5588, Atlanta, GA 30307; 404/377-3150.

## ADVENTURES

**Arboreal Expeditions:** Information from 1426 Spruce Street, Berkeley, CA 94709; 510/540-0491.

*Tree-climbing adventures for all levels with a professional arborist and tree aficionado. Proceeds donated entirely to nonprofit organizations working to help trees.*

## INSTRUCTION

### Tree Climbers International

*This organization has a permanent climbing school site in Atlanta, GA, with regular twice-monthly classes. They may be able to connect you with climbers in your area who are willing to share their skills. See address above.*

**Canopy Climbs:** Information from Rt 2, Box 546, Longville, MN 56655; 218/363-2260.

*Three levels of professional instruction at reasonable prices, plus a special course on tree camping. Students have ranged in age from three years to sixty, and have all been able to master Jeff's tree-friendly technical climbing style.*

## BOOKS

**Rappelling:** Tom Martin, 1988; 302 pp. ISBN 0-930871-02-2. \$14.95 postpaid. Search, 106 Sterling Avenue, Mt. Sterling, KY 40353.

**On Rope** (North American Vertical Rope Techniques): Allen Padgett & Bruce Smith, 1987; 341 pp. ISBN 0-9615093-2-5. \$24 postpaid. National Speleological Society, 2813 Cave Avenue, Huntsville, AL 35810; 205/852-1300.

*Recreational tree climbing is still too new to have its own training manuals. But methods and hardware for Single Rope Technique are the same whether the rope is fastened to the top of a cliff, the mouth of a cave, or the canopy of a tree. Either of these books is a good start for learning SRT. (Tautline-hitch climbing has always been learned on the job by commercial arborists, so unfortunately there is nothing in print on that technique.)*

**Old Growth in the East:** Mary Bird Davis. Cenozoic Society, 1993; 150 pp. ISBN 0-9638402-0-7. \$20 postpaid. Wild Earth, PO Box 455, Richmond, VT 05477; 802/434-4077.

*Most big trees east of the Mississippi were cut down by the mid-1800s, but some pockets remain. Here's where to find them.*

**The Attentive Heart** (Conversations with Trees): Stephanie Kaza. Fawcett Columbine Books, 1993; 258 pp. ISBN 0-449-90779-1. \$17.50 (\$19.50 postpaid) from Random House/Order Dept., 400 Hahn Road, Westminster, MD 21157; 800/733-3000.

*Stephanie Kaza captures the numinous presence of treespirit as she experiences it in her relationship with trees of the Pacific states region. This is not a fanciful story of fairies or "talking trees"; Kaza's approach embodies Buddhist quiescence and attention, allowing her to humbly open her heart and mind to recognize the story a tree can tell of its life, desires, and gifts. She includes a good dose of natural and human history, keeping the text grounded and pertinent. With vibrant lithographs by Davis Te Selle.*



## The Cold Life

People who live where it gets really cold and stays really cold are a different species than people who live where drastic downward thermal excursions are unthinkable. Up North, temperature is always thinkable, because if you don't pay attention, you will slow down like a snake in February, and finally achieve terminal marbleness. While living in interior Alaska (before it was a state), I discovered that Alaskans and northern Canadians claimed to be just plain folks, but deep down inside they did consider themselves different than, and probably superior to, people who have not spent at least one winter where the breakfast radio weather report is "look for a high today of 34 and a low of 45." What can be a rough life (outside of modern settlements) seems to engender a tough, resilient, no-nonsense manner, and a recognizable style of humor.

What brings this to mind is a most-welcomed reprinted 1979 copy of **The Lost Whole Moose Catalogue** — as enthusiastic a take on our name as we've seen — and the newer (1991), exceptionally fine **Another Lost Whole Moose Catalogue**. These books only somewhat resemble our Whole Earth Catalogs, but the spirit is similar. There are no ads. Practical information and instruction are mixed with lore (northern folks are very big on story and legend), politics, lies, image reinforcement, humor, and sagacious advice. Even if you live in Miami, these books are hard to put down; they make you want to come see if the tales of beauty and daring can be true. If you live in the Yukon now, they make good reading for the long nights. If you've been there and left, they are the (moose) call of the wild.



**Madame Tremlay on Miller Creek, 1895.** She likely shaved her hair because the cabins in those days were infested with lice. Note the large-size gold pan, made for men with strong backs; also the wooden boxes by the door, likely used to classify gold-bearing gravels. —Yukon Reader

Another sturdy source of Yukon spirit is **The Yukon Reader**. Appearing six times a year, it records "the Spirit and the Times of the Far Northwest" so we don't forget who came before us, and how things got this way. Present action is recorded, too. Despite modern technology, here's still lots of opportunity for adventure and misadventure (the ingredients of legends to come) in everyday Yukon life. Still plenty of classic rugged individualists and odd characters, too.

From 1968 to 1988, the late Billie Wright and her husband Sam spent much of their time living in a remote, twelve-by-twelve foot cabin in Alaska's rugged Brooks Range. She kept a journal that became a book called **Four Seasons North**. In it Wright recorded her feelings about the sort of life she and her mate were living. She paid attention. If you've wondered what that sort of life might be like today, you'll find out here. —J. Baldwin

● A great circle of caribou hair carpeting the tundra. The snow is gone. The wolves made a winter kill. —*Four Seasons North*

● With the unavailability of free and cheap land, the choices of land selection have been reduced to 20 grand subdivided lots. It seems absurd now to build a \$200 log cabin on a \$20,000 lot. In fact, various government agencies will insist you do not, with a maze of regulations and bureaucratic hoops to jump through. They, along with the banks, will require that you add hydro\* power, plumbing, septic tanks and approved heating systems to your list of expenses. Add to this the likelihood that you will have to hire qualified tradespeople to build or install it.

This is all stimulating for the local economy, but not personally stimulating and rewarding for the homeowner. It was so simple, so cheap, so physically strenuous, and so damn satisfying to build it yourself. Now my ex-pioneer friends pay me to build it, to overbuild it, at great expense, with all the amenities they were trying to escape from in the 70s. —*Lost Whole Moose Catalogue*

\*That's what they call the state power company in Canada. —JB

### Four Seasons North

Billie Wright. Sierra Club Books, 1991; 278 pp.  
ISBN 0-87156-555-2  
\$10 (\$13 postpaid) from Sierra Club Store Orders, 730 Polk Street, San Francisco, CA 94109; 800/935-1056

### The Lost Whole

**Moose Catalogue**  
(A Yukon Way of Knowledge)  
Lost Moose Collective.  
1979; 112 pp.  
ISBN 0-9694612-1-6  
\$18 postpaid

### Another Lost Whole Moose Catalogue

Lost Moose Collective. 1991; 156 pp.  
ISBN 0-9694612-0-8  
\$23.50 postpaid  
Both from Lost Moose Publishing, 58 Kluane Crescent, Whitehorse, Yukon Y1B 3G7 CANADA; 403/668-5076

### The Yukon Reader

Sam Holloway, Editor.  
\$22/year (6 issues)

### The Yukon Reader

**First Collected Edition**  
(Stories from the First 12 Issues)  
\$13.95 postpaid  
Both from World-Yukon Publications Ltd., PO Box 4306, Whitehorse, Yukon, Y1A 3T3 Canada; 403/668-2355, fax 403/668-7953





## Clearcut

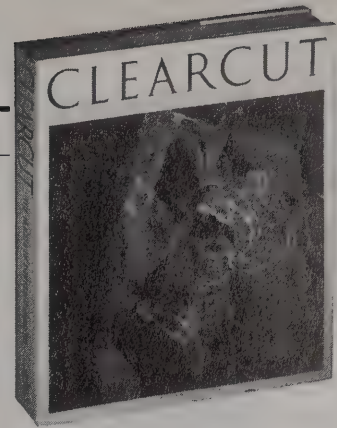
Somehow — perhaps it's the large format — the photographs in this appalling book ferociously overpower any arguments about spotted owls versus jobs, "wise use", and forests managed as a renewable resource. The bitter images silence talk of there being two ways of looking at things, and that compromise is necessary. Here is irrefutable proof of what has actually happened and what is actually happening: Destruction. Total, irreparable, irresponsible destruction.

Here, not in someone else's remote rainforest. I've never seen this grim stuff presented anywhere near so strongly. You really must take a long look, no matter how painful it may be. Have your library and schools get a copy. It's clearly a time for action. —J. Baldwin

### Clearcut

(The Tragedy of Industrial Forestry)

Bill Devall, Editor. Sierra Club Books/Earth Island Press, 1994; 291 pp. ISBN 0-87156-494-7; \$50 (\$57 postpaid) from Sierra Club Store Orders, 730 Polk Street, San Francisco, CA 94109; 800/935-1056



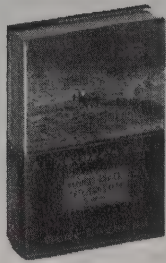
Photographer Balthazar Korab tells of his personal struggle to understand, and then articulate through his photography, the agony wrought by industrialism to his adapted home state of Michigan.

... "I discovered with shock that millions of acres of white pines covered the state when white men arrived in the mid 1800s and by 1910, all but a few acres were cut down, without any effort to replant. Only 49 acres of old growth exist today, preserved by

accidental circumstances at Hartwick Pines State Park. Most of the later reforestations show pitiful, unimaginative monotony... and today we listen to the inane debate of the politicians about the spotted owl versus jobs, while the clear-cutting equipment is humming away. In a debate where nobody brings up the fact that when the white pines were gone the lumberjacks went on living by building cars."



## At Nature's Pace



### At Nature's Pace

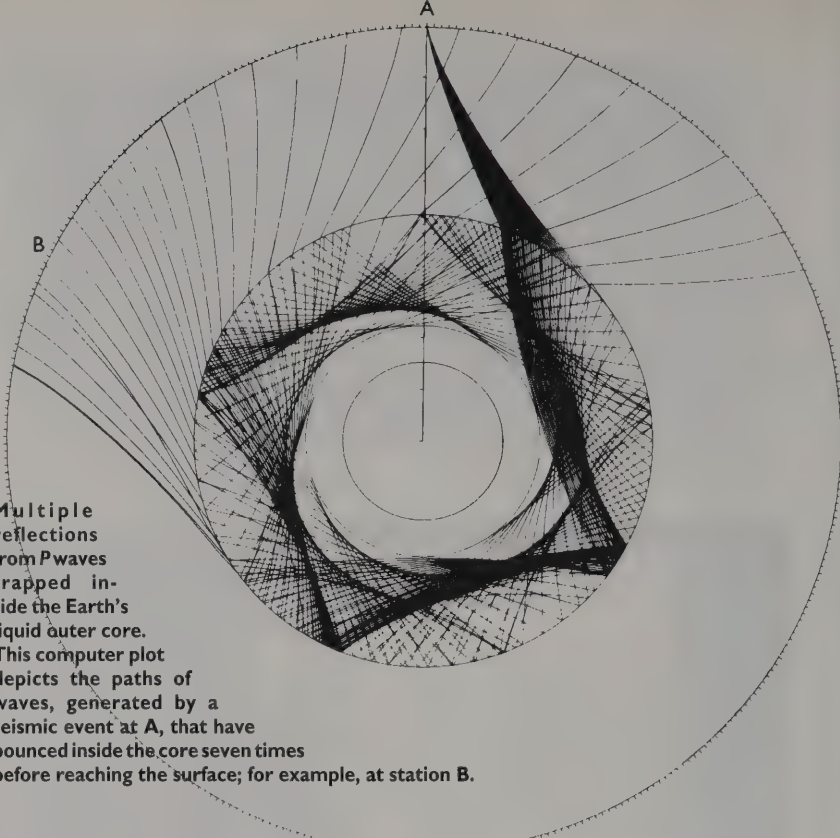
(Farming and the American Dream)  
Gene Logsdon. Pantheon Books, 1994;  
208 pp. ISBN 0-679-42741-4  
\$23 (\$25 postpaid) from Random House/  
Order Dept., 400 Hahn Road, Westminster,  
MD 21157; 800/733-3000

*"Pure, unmitigated, unashamed anger" about the decline of our rural society drove Gene Logsdon to write this book. Even so, he has managed to include a good measure of optimism and humanity in these pages.*

Logsdon knows what he's talking about. He's an experienced farmer from the Heartland who has been writing on farm issues for many fruitful years. Equally at home with university deans and Amish plowmen, he helps us understand that healthy agricultural practices transcend technological efficiency. His observations on crop subsidies, ag education, technology and mechanization, or the harmonies of cutting firewood, offer practical examples and valuable metaphors for the development of sustainable human life on Earth. —David Katz

I can give three reasons for my prediction that the number of food and fiber producers ("food and fiber producer" is the only definition of farmer that works) is about to increase. One: historically, in all the past civilizations I have studied, the denser the population becomes, the smaller and more numerous the farms become. Two: financially, the economies of scale that apparently rule manufacturing do not really apply to any sustainable kind of food production; when you count all the costs, it is cheaper to raise a zucchini in your garden than on a megafarm. And three: socially people are beginning to understand they really are what they eat and are demanding quality food, which megafarms can't supply.

The author peers around a model of Chang Heng's seismoscope built at about one-fifth actual size

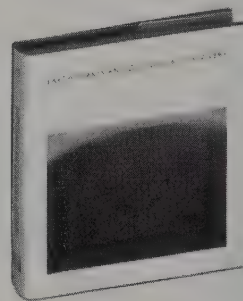


**Multiple reflections from Pwaves trapped inside the Earth's liquid outer core. This computer plot depicts the paths of waves, generated by a seismic event at A, that have bounced inside the core seven times before reaching the surface; for example, at station B.**

## Earthquakes and Geological Discovery

Squiggly line spoken here, of course, and there are vivid descriptions of major temblors recorded around the world — fortunately free of voyeuristic disaster-gee. But Berkeley's famous professor Bruce Bolt (ret.) takes us beyond the familiar magazine article stuff. He explains the latest earthquake theories, the methods used to test them, and what geologists have been learning as they sharpen their predictive skills. Photographs and diagrams make the concepts accessible without subjecting the reader to the complex supporting mathematics and computer models. Not just for nervous Californians; you can get shook up just about anywhere.

—J. Baldwin



### Earthquakes and Geological Discovery

Bruce A. Bolt. Scientific American Library, 1993; 229 pp. ISBN 0-7167-5040-6  
\$32.95 (\$35.95 postpaid) from W.H. Freeman and Co., 4419 W. 1980 S., Salt Lake City, UT 84104; 800/488-5233



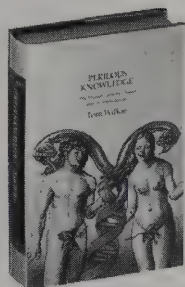
## Playing By Heart

When I first met O. Fred Donaldson, he told me he was doing aikido with wolves. "Ha, ha," I thought. "Right." Turns out he was, kind of. **Playing By Heart** contains the wisdom of Donaldson's twenty-plus years of exploring the nature of play with animals and humans. Personally, I notice that I'm more present with my children after reading this book.

—Richard Strozzi Heckler



## Perilous Knowledge



### Perilous Knowledge (The Human Genome Project and Its Implications)

Tom Wilkie. University of California Press, 1993; 195 pp. ISBN 0-520-08553-1  
\$20 (\$23 postpaid) from  
California/Princeton Fulfillment Services,  
1445 Lower Ferry Road, Ewing, NJ  
08618; 800/777-4726

Over the next ten years, the Human Genome Project will load into computer databases the entire set of genetic instructions that specifies a human being. While this will profoundly affect the treatment of genetic disorders, it also raises disturbing issues about privacy and discrimination, and stimulates darker fears about things like selective breeding.

Despite the complex and potentially dry subject matter, this readable book goes down like a drink of cool water. In plain English, physicist/writer Tom Wilkie recounts the history of the Project, explains the process, reports on where it is now and where it's going, and stirs up some big moral and social questions.

—Mike Ashenfelder

The subtle alchemy by which human touch and trust transmutes love and fearlessness from one human being to another seems often to defy my abilities to explain, but that it happens and is the essential 'stuff' of life is beyond question. Some cultures and individuals do a better job than others at sharing this mystery with their children. This is reflected in the inclusion of males in the caregiving process and the increased amount of nurturing touch given to children for longer periods in some hunter-gatherer cultures. In more technologically advanced societies, however, touch declines rapidly after birth to be ignored, discounted and feared by adolescence. We do not know how to touch. And we are afraid of what we don't know. The guidelines of a rural elementary school in Southern California say, "Keep your hands and feet to yourself at all times." The evidence of abuse and aggression is endemic in America. But to gather such statistics is not enough, we must examine our assumptions about human life.

Being kind is not throwing oneself away. Being kind is not letting someone else do whatever they want to you. These are the other ends of the aggressor-victim continuum. When I model kindness in the face of the attacks, my entire presence, including my spirit and my movements, must be clear about being neither aggressor nor victim. This inner clarity must be very strong because most people are afraid. They do not know what to expect. From an observer's viewpoint, I seem to allow children to beat me up. My intention is not to attack or defend the child's aggression, but in changing myself to present a surrounding trust within which the child will find it unnecessary to attack.

I do not own my own genes; I was 'given' them by my parents and I have passed them on (or, at least, half of them) to my children. My immediate family have a legitimate interest in knowing my genetic constitution, so I cannot claim it as my private property. But the most important question to be posed in the short term by the Human Genome Project, a question which society has not even begun to answer, is who else has the right to know what is written in my genes and who can constrain how I act on that knowledge?

If I know I have a genetic predisposition to heart disease, but the insurance company does not know, I am in a position to



### Playing by Heart

O. Fred Donaldson. 1993;  
246 pp. ISBN 1-55874-253-0  
\$12.95 (\$17.20 postpaid) from  
Health Communications, Inc.,  
3201 SW 15th Street, Deerfield Beach, FL  
33442; 800/851-9100

Sybil sauntered back to her special spot among the six other wolves, nosed the ground and spiraled slowly downward. I stood and began to move slowly about the enclosure. Almost immediately, Sybil trotted over. She jumped up and put her paws on my forearm which I held out in an arc in front of me. She mouthed my beard and I jostled her head with my free hand. Our faces were very close. Then we caught each other's eye. Suddenly there was neither wolf nor human, neither Sybil nor Fred, just light. For just a second, something powerful penetrated me and was gone. For just a second, I had been drawn into her deepest life.

Here are the six Play Principles:

1. Be not afraid of life.
2. All life is of one kind.
3. Touch is our primary language.
4. Be a beginner.
5. Smooth moves follow a clear heart.
6. Expect nothing, be ready for anything.



change the odds of the bet: I can take out much more insurance. As Wexler comments, 'Anything that is supported through life insurance is a major problem. If people know they're at risk they could buy enormous insurance and skew the statistics.' On the other hand, the company might try to skew the statistics by refusing to cover those diagnosed to be at genetic risk. In such an event, Wexler believes, the only way to get cover would be to get a job which carries with it an occupational pension where there is no genetic screening.



# How A Book Gets Published

## 1. THE AUTHORS PRESENT THEIR PROPOSAL



## 2. THE BOOK CONCEPT IS DISCUSSED AT AN EDITORIAL MEETING



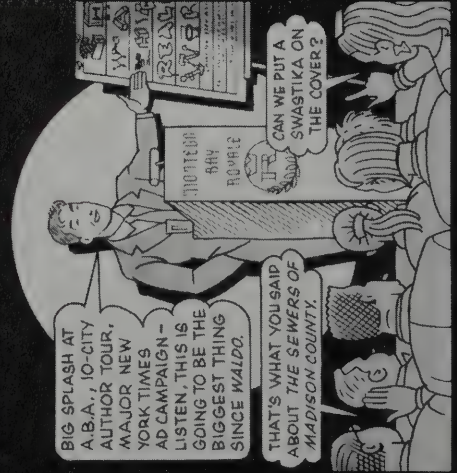
## 3. A COVER DESIGN IS CHOSEN



## 4. A PRICING STRATEGY IS FINE-TUNED



## 5. THE EDITOR PRESENTS THE BOOK AT SALES CONFERENCE



## 6. THE MANUSCRIPT IS SENT TO THE PRODUCTION DEPARTMENT



## 7. THE PUBLICITY DEPARTMENT SHIFTS INTO HIGH GEAR



## 8. THE FINAL MARKETING PLAN IS FIRMED UP











Before you read any further, please do us a favor. Get out the Yellow Pages. Go to the phone. Call some local bookstores and ask if they have the Millennium Whole Earth Catalog in stock yet. If they ask you to order, say "No thanks, but I'm really looking forward to it. When will it be in the store?"

Thank you. That will really help. Now on to Gossip.



What started out as a single-issue guest editor's job has turned into a surprise gift — the editor's job on a permanent basis. Howard has had such extraordinary success in the world beyond Gate Five Road that his time here has become an expensive (to him) labor of love. While he will always maintain an office here, I expect to see his growth as a national figure accelerate. His painted shoes are hard to fill.

We finished moving the offices around with much help from the Coalition for the Homeless (which led to the homeless piece on p. 71). Imagine your favorite collection of people painting, lugging, redecorating, and gossiping.

Malik Rauschenberger, Donna Troisi, Max, and Emily camped out in the new offices in late February. Malik is famous on the East Coast for his textured wall treatments; he left us a piece of work that brings the surrounding hills into the kitchen. It's a sight to behold.

The magazine's new look is one aspect of our attempt to reach new readers. Ruth Kissane and I burned a lot of brain cells working out a new approach to WER's development. We gave the directions, and Kathleen O'Neill, Winslow Colwell, Todd Tibbetts, Lisa Winer, and James Donnelly broke all the speed

records for designing and producing the beast.

We worked hard to ensure that there was no relationship between the full-page graphics (Random Art) and the adjacent text. No one so far has looked at them without finding a relationship of some kind. The full-page graphics dictated the new paper — we want it to sound like a magazine when you turn the

pages. The new stock has the highest postconsumer recycled content available (20 percent) and, amazingly, turns out to be 6 percent cheaper than the old stuff.

About the last issue. We held up delivery for about a month so that this magazine could be dated July 1. That gives us the right schedule mix for the Catalog, with our next issues due on October 1 and January 1.

The Catalog is zooming along. As of this writing, it

looks like we will have a hit on our hands. We've beaten our amazing team of domain editors into the ground while they've performed various acts of love. Major efforts from Patrizia DiLucchio, Phil Catalfo, Nancy Pietrafesa, Jay Kinney, Karen Van Epen, Tom Ferguson, Peter Marshall, Richie Unterberger, and Art Kleiner helped us meet the March 15 interim deadline — we turned in half the pages that day, to considerable fanfare. The latter part of March saw the offices populated by sleep-deprived, overworked, shambling zombies.

In early April, a handpicked team of Catalog troublemakers descended on Austin, Texas for the first great Whole Earth Prank of the decade. We partied with the best band in Austin, 350 readers, Harper San Francisco's Catalog sales team, ten million Austin Bats (really), 700 people's worth of Wavy Gravy Ice Cream, sound-activated massage tables, Stevie Ray Vaughn's reincarnation Widget, the Texana Dames, and Electronic Frontier Foundation patchholders. The Austin Hyatt's sixteen-story atrium served as an aerodrome for the robot blimps that divebombed the glass elevators. Credit for the night falls squarely on

Photos by Gaetano Kazuo Maida

Digger's shoulders. We're eternally indebted (and likely to get more so) to Wavy Gravy (the Man and the Flavor). If you're ever in Austin, visit La Zona Rosa on Sunday afternoon to hear the Texana Dames. Families with kids drove three hours to attend the Prank. It was impressive.

Austin ground support and cheerleading credits belong to Jon Lebkowsky and the Fringeware staff. We'll try to make a similar visit to a major subscriber haunt each quarter.

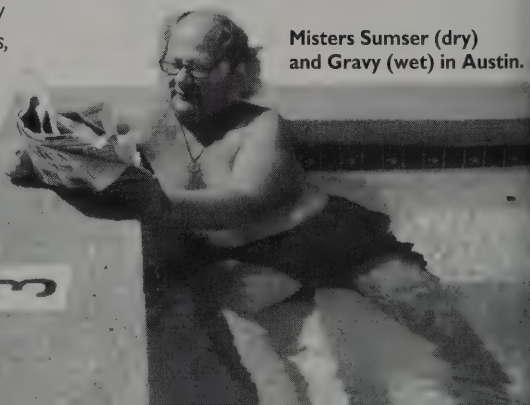
The new old digs continue to be really swell. Lunch visitors have included camera crews, famous editors, astronauts, architects, musicians, and others.

Major apologies for the state of the mail. I have been derelict in replying to mail for the last 120 days. The editor's job is much more than I'd anticipated. I WILL get back to you.

At Peter Marshall's recommendation, we hired Hacsí Horvath; you will encounter Hacsí if you call here. He's a gem. Karen Van Epen and Mollie Rights have signed on as magazine domain editors. Winslow Colwell has brightened the design team with his kite-maker's sense of humor. There are more couches to sleep on and more overnight guests. Daniel Greenberg is turning Kidzlab from a fancy to a reality. The sound of children remains in the office.

Volleyball has been replaced with frisbees, boomerangs, hearty lunches and a heavy influx of new music. Next step is the introduction of regular office jam sessions. Improvisation and harmonizing. Looks like we're here for the long haul. —John Sumser

**Please remember that we've cut renewal notices down to only two. As a real effort to conserve paper, we've foregone the classic renewal and subscription development mailing blizzard. We count on you to renew your subscription. —JS**



Misters Sumser (dry) and Gravy (wet) in Austin.

# Thus Do We Make Yogurt of Ourselves

## Where Whole Earth Gets Its Culture These Days

Book *Pure Lust*. Mary Daly: 1992, HarperSanFrancisco  
*Montaillou*. Emmanuel Le Roy Ladurie: 1982, Schoenhof's Foreign Books

Music Late-sixties Jamaican rocksteady, early Cuban rhumba septets

### Haci Horvath

Books *The Book: On the Taboo Against Knowing Who You Are*. Alan Watts: 1972, Random House  
*Junkie*. William Burroughs: 1953; 1977, Penguin Books

Music Taj Mahal, Cowboy Junkies

### Todd Tibbetts

Books *Their Eyes Were Watching God*. Zora Neale Hurston: 1990, HarperPerennial  
*Storming Heaven*. Jay Stevens: 1988, HarperPerennial

Music Oumou Sangare: *Ko Sira*

### Mike Ashenfelder

Books *West With the Night*. Beryl Markham: Out of print  
*Assembling California*. John McPhee: 1993, Farrar, Straus & Giroux

Music Liz Phair: *Exile in Guyville*  
Everything ever graced by Van Morrison

### Winslow Colwell

Book *The Ants*. Holldobler and Wilson: 1990, Belknap Press of Harvard University Press

Music Kevin Burke: *Up Close*  
Ali Farka Toure: *The River*

### Kathleen O'Neill

Books *Snow Crash*. Neil Stephenson: 1993, Bantam  
*Pi in the Sky*. John Barrow: 1993, Little Brown & Co.

Music Anonymous 4: *An English Ladymass*  
Steve Goodman: *Unfinished Business*

### Mike Stone

Book *Cathedral*. Raymond Carver: 1989, Random House

Music Tom Waits: *Closing Time*  
Liz Phair: *Exile in Guyville*

### Wade Fox

Books *The Pugilist at Rest*. Thom Jones: 1993, Little Brown & Co.  
*Lantern Lecture*. Adam Mars-Jones: 1983, Penguin Great Britain

Music The Louvin Bros.: *Satan is Real!*  
Ralph Stanley, et al.: *Saturday Night & Sunday Morning*

### James Donnelly

Book *Genius*. James Gleick: 1993, Vintage

Music Jennifer Warnes: *Famous Blue Raincoat*  
Brian Eno: *Nerve Net*

### Colleen Sumser

Books *Lasher*. Anne Rice: 1993, Alfred A. Knopf

Music Loreena McKennitt: *Lady of Chalot*  
Stephen Halpern: *Eastern Places*

### Carlos Winborn

Music Eubie Blake: *Piano Rolls (vol. 8 of Eubie Blake archives)*

### Digger

Book *Geek Love*. Katherine Dunn: 1990, Vintage

Music Brian Setzer Orchestra: *Sky Hi and 07 Present the Marcus Garvey Tapes*

### Barbara Blosser

Books *A Scanner Darkly*. Philip K. Dick: 1991, Vintage  
*My Mother: A Novel*. Kathy Acker: 1993, Pantheon Books

Music Tom Waits, et al.: *The Black Rider*  
*Nothing Painted Blue*: *Power Trips Down Lovers' Lane*

### Caius van Nouhuys

Books *The Everglades: River of Grass*. Marjory Stoneman Douglas: 1986, Pineapple Press  
*The Big Sleep*. Raymond Chandler: 1939, 1993 Vintage

### David Burnor

Book *October Palace*. Jane Hirshfield: 1994, HarperPerennial

Music Cheb Khaled, Zap Mama

### Howard Rheingold

Books *On Growth and Form*. D'arcy Wentworth Thompson: 1992, Cambridge University Press  
*Mandolin Brothers Catalog* (musical instruments)  
*Street Zen*. David Schneider: 1993, Shambhala Publications

*Remote Control*. Barbara Kruger: 1993, MIT Press

Music Richard Thompson: *The World Is a Wonderful Place*  
Loreena McKennitt: *The Mask and Mirror*  
Aztec Two-Step: *Aztec Two-Step*  
Brian Eno: *Neroli*

Jerry Garcia and David Grisman: *Not for Kids Only*

### John Sumser

Books *Ask the Dust*. John Fante: 1992, Black Sparrow  
*Chilly Scenes of Winter*. Ann Beattie: 1990, Vintage  
Contemporaries

Music Lenny Kravitz: *Mama Said*  
Velvet Underground: *Loaded*

### Lisa Winer

Books *The Art of the Personal Essay*. Phillip Lopate: 1993, Anchor Books  
*Mastery*. George Leonard: 1992, Plume

Music Gene Bowen: *The Vermilion Sea*  
Altan: *Island Angel*

### Ruth Kissane

Books *The Flounder*. Gunter Grass: 1989, Harcourt Brace & Co.  
*Breath on the Mirror*. Dennis Tedlock: 1993, HarperSanFrancisco

Music Cocteau Twins, Ali Farka Toure

### Karen Van Epen



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Printing **William Byrd Press, Inc.,**  
 Richmond, Virginia  
 Mailing List Brokers **Pacific Lists,**  
 Mill Valley, California

## Austin

**Jon Lebkowsky:** *on-the-ground contact man*  
**Steve Jackson:** *FBI's own facilities guy*  
**Michelle Houston:** *cowpunk goddess*  
**Janice Janecek:** *window dresser*  
**Wavy Gravy:** *enfant terrible*  
**Rob Benson:** *batman*  
**Two Hoots and a Holler:** *best Austin roots band*  
**Clay Daniel:** *acoustic guitar player*  
**Paco Nathan:** *grand jury testimony*  
**Eddie Wilson:** *political presence & ice cream delivery*  
**La Zona Rosa:** *best Austin bar*  
**Texana Dames:** *best Austin bar band*  
**Kilgore the Fourth:** *Hot Trout Award (sorry, Wavy)*  
**Darrel Slusher:** *most deserving politician*  
**ericas:** *Berkeley presence*  
**Alex Iles:** *robotlimper*  
**Jeff Turner:** *magical musical massage*  
**EFF Austin:** *VR setups and gizmos*  
**Threadgill's:** *Texas comfort food*  
**Whole Earth Provisioning:** *siren-whistle supplier*  
**Hertz:** *van accommodations, left-turn mavens*  
**Hyatt Austin:** *blimp aerodrome*  
**Mike Stone:** *Mechanical Bullriding Award*  
**Howard Rheingold:** *local color*  
**Toy Joy:** *Archie McPhee back stock*  
**Tano Maida:** *Avedon impersonations*  
**City of Austin:** *for subsidizing the damage claims*  
**Austin Lounge Lizards:** *Wavy Award*  
**Marsha and Colton Lebkowsky:** *above and beyond the call*  
**The Moving Team**  
**Bobby Joyce of the San Francisco Coalition for the Homeless:** *muscle, heart, infectious smile*  
**Miranda Simone and Rolf Rafeek (Brauch Software)**  
**Margaret Leshandro and Rob Smith (William Byrd Press)**

# THE CREDITS

Sol Columbus  
*(Moonlight Press)*

Greg Bradley  
and Winters Borel

Bob Boyken and Kim Goebel  
*(Fulco, Inc.)*

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John Brockman: *tactician*

Tom Grady, Nancy Fish,  
Mathew Lore, Carolyn Pincus,  
Jim Andrews, Michelle Wetherbee,  
Ani Chamichian: *the Harper  
San Francisco crew*

Kim Wong: *typesetting*

Peter Warshall

## Kidzlab

Daniel Greenberg:  
*biggest kid of all*

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*San Rafael schools*

Lego: *role model*

Broderbund Software:  
*review supplies*

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Tesla

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Techno Genius and a  
good friend*

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*creature of light*

Dan Callaway, Gary  
Morrell, "The Way"  
*(LAN Minds)*

Jim Duetgjn

David Chadwick: *sensei*

Edward Tufte: *Flatland guide*

Global Business Network

Gerry Johnson: *a patient, smart  
guy and good friend who works  
very late on short notice*

Grant Abert:  
*the Angelic Donor*

Christophe Le Bret:  
*the new Maniacal*

King Sip: *for the native garden at  
Strybing*

KO:  
*a great teacher/team leader*

Lois Anderson:  
*for inspiration*

Marin Community  
Fund Board

Outside Magazine

Richard Thompson: *relaxed tight-  
ness*

Suru  
*Thanks, Judge Tackett. Thanks a  
whole fuckin' lot.*

## WELLmakers

We would like to take this  
opportunity to thank a few of the  
people who helped build the WELL:  
Carolyn Clock Allen, Stewart Brand,  
Larry Brilliant, John Coate, Hugh  
Daniel, Erik Fair, Clifford Figallo,  
David Hawkins, Kenton Hoover,  
Kevin Kelly, Art Kleiner, Matthew  
McClure, Robin Gail Ramsey,  
Nancy Rhine, Elaine Richards, Jim  
Stockford, Marcus Watts.

**HLR and Nancy Fish get down/  
get funky in Austin. Notice  
Howard's gold lamé suit.**



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a boomerang*  
Jeff & JoAnne Lord:  
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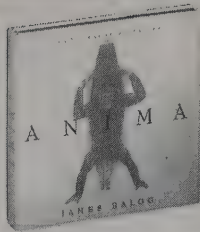
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<b>INCOME</b>					<b>CATALOG EXPENSES</b>				
SUBSCRIPTIONS	473841	46799	BUDGET		788000				
CATALYSTS	62235	2885	EXP TO DATE						
DONATIONS	20855	1325	SALARIES		103658	71534			
WELL SALE	750000		CONTRIBUTORS		5366	3278			
CATALOG ADVANCES	266199		EQUIPMENT						
TOTAL:	1573130	51009	TOTAL:		897024				
<b>EXPENSES</b>					<b>ENDOWMENT BALANCE</b>				
SALARIES	370974	35767	STARTING BALANCE		750000				
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